Compact Metal Industries Ltd v PPG Industries (Singapore) Ltd
[2006] SGHC 242

Case Number : Suit 442/2005

Decision Date : 29 December 2006

Tribunal/Court : High Court

Coram : Sundaresh Menon JC

Counsel Name(s) : Michael Por Hock Sing and Siva Krishnasamy (Tan Lee & Partners) for the plaintiff; Nicholas Jeyaraj Narayanan (Michael Hwang SC) for the defendant

Parties : Compact Metal Industries Ltd — PPG Industries (Singapore) Ltd

29 December 2006 *Judgment reserved.*

Sundaresh Menon JC

1 The parties to this action were both involved in the project to refurbish the Monetary Authority of Singapore Building (the "MAS Building") and the material events took place in 2004. The main contractor for that project was Taisei Corporation ("Taisei"). A company known as Façade Master Pte Ltd ("Façade") was appointed as the nominated sub-contractor for the supply and installation of the external cladding. Façade is a subsidiary of the plaintiff, Compact Metal Industries Ltd. Façade appointed the plaintiff to undertake the paint application work in respect of the aluminium panels to be used in the cladding. The plaintiff in turn engaged another of its subsidiaries, Compact Metal Industries Sdn Bhd ("Compact Malaysia") to actually carry out this work. The paint was to be supplied by the defendant, PPG Industries (Singapore) Pte Ltd. However, this was not an ordinary paint. It was a customised paint that was not featured in the defendant's standard colour charts. It emerged during the course of the trial that the composition of the paint that was initially supplied was unique and had not previously been used. The defendant would only sell paints such as this to those it had approved as applicators. Compact Malaysia had been such an approved applicator since 1999 although from 10 October 2002 to 30 October 2004 when most of the relevant events in this case took place, that status was in fact held by the plaintiff. However, nothing turned on this.

2 As it transpired, considerable difficulties were encountered in achieving an acceptably consistent finish with the paint that was initially supplied by the defendant. This resulted in the parties seeking the approval of the architect to change the formulation of the paint and this was secured later in 2004. Even then, it was only after some more months of trial, error and adjustment that a satisfactory quality was achieved. The central question in this case is who should bear the responsibility for the loss and damage that was sustained as a result of this. The answer to that question, depends first upon what the relevant terms of the contract are, and second upon what the cause of the problem was.

Preliminary observations

3 The matter was heard before me over 13 days with a total of seven witnesses giving evidence. Before analysing the evidence, I think it is appropriate here to make some observations about the length of time taken with the evidence in the case. The number and range of the factual issues in the case were not such as to inevitably require so many hearing dates. Unfortunately, it did and in my judgment, this was at least in part contributed to by the manner in which the affidavits of the evidence-in-chief were presented. This was applicable to both parties but perhaps especially so in relation to the affidavits filed on behalf of the defendant. In general, the affidavits included at least

some of the following:

(a) arguments and submissions;

(b) inferences drawn by the witness, the difficulty this posed being compounded where the witness failed to make clear that he was straying from giving direct evidence of what he knew into drawing conclusions or inferences;

(c) statements that were based on belief or information rather than based on the witness's own knowledge and often without identifying the sources of such information and belief; and

(d) statements or conclusions which were purportedly supported by the exhibits but which were not always so upon a closer examination.

4 There is much to commend the practice of having the evidence-in-chief of a witness adduced by way of affidavits as mandated by Order 38 r 2 of the Rules of Court (Cap 322, R 5, 2006 Rev Ed) ("the Rules"). However, it is vital to keep in mind that the affidavits of evidence-in-chief for use in a trial are quite different from affidavits that are filed for use in interlocutory proceedings. In respect of the latter, O 41 r 5(2) provides that an affidavit sworn for the purpose of being used in *interlocutory* proceedings may contain statements of information and belief. This is not the case in relation to affidavits of evidence-in-chief and O 38 r 2(5) sets out the important rule that nothing in O 38 r 2 is to render admissible, any evidence which if given orally would be inadmissible.

5 I can do no better than to cite the following passage from the work of one of our leading commentators on matters of civil procedure, Prof Jeffrey Pinsler. In Singapore Court Practice 2006 (Jeffrey Pinsler gen. ed.) (Lexis Nexis 2006) at para 38/2/7, the learned commentator states as follows:

> The rules of evidence are specifically preserved for the affidavit procedure (O 38 r 2(5)). The advocate should be satisfied that he has obtained all the necessary information from the witness concerning the case before he commences drafting. This information would usually be recorded in a statement signed by the witness. The statement may then be reviewed prior to drafting the affidavit to determine what evidence is relevant to the issues in the case. The advocate should only include relevant evidence, that is, evidence which concerns facts in issue and relevant facts (as provided for in ss 5-57 of the Evidence Act). All other information must be excluded from the affidavit as being outside the scope of the court's concern. Any part of the affidavit which is irrelevant may be struck out (O 41 r 6). It is important that all the evidence sought to be relied upon is included in the affidavit, as a witness may not be examined in chief on evidence which could have been included in the affidavit but which was omitted, unless the court otherwise orders (O 38 r 2(3)). At the same time, the deponent must understand that he is not obliged to disclose certain facts. These include privileged communications between his advocate and himself (ss 128 and 131 of the Evidence Act) and between his wife and himself (s 124 of the Evidence Act). The advocate must also be aware of the exclusionary rules and their exceptions which govern the admissibility of hearsay, opinion, character evidence and evidence of previous judgments and orders (ss 14-57 of the Evidence Act). In particular, there is the general rule applicable to affidavits used in non-interlocutory proceedings that the deponent is only entitled to refer to facts of which he has personal knowledge (O 41 r 5). It may be tempting for the deponent, particular if he is a party, to state his conclusions on his evidence and to include arguments which express his point of view. Both courses would be improper. As a general rule, it is for the court to judge the effect of the evidence, not the witness himself, unless he is an expert who offers an opinion on his findings (s 47 of the Evidence Act). The deponent should not

make assumptions as to what evidence will be given by the opposing witnesses and challenge it. As the purpose of the new process is to substitute the examination-in-chief of the witness, the affidavit should only contain matters which would ordinarily be raised at this stage. Consequently, it would not be appropriate to raise arguments on the facts and the law as these are matters which are traditionally left to the closing speech (see, for example, *Alex Laurie Factors v Morgan* The Times, 18 August 1999, in which it was said that that a witness statement is not intended to present a party's legal arguments). As in the case of the ordinary examination of witnesses, the affidavit must be free of insulting remarks, offensive language and other scandalous or oppressive matter. If the affidavit fails to abide by this rule, the offending part or parts will be automatically struck out by the court (O 41 r 6).

6 In my judgment, those observations are entirely apposite. I commend them to all whose responsibility it is to prepare affidavits of evidence-in-chief for use in our courts. It is of course true that the Rules do provide for objections to be taken to the contents of such affidavits. However, leaving aside the fact that such a course inevitably results in time and costs being wasted, the availability of such recourse in any case does not displace the primary duty of the solicitor preparing the affidavit to ensure that he has done so in compliance with the requirements of the Rules to the best of his ability.

The facts and the evidence

The witnesses

7 I turn to consider the facts and the evidence in this case. I heard evidence from four witnesses on behalf of the plaintiff. These were:

(a) Mr Eric Lo ("Mr Lo") who was a director of Façade. He was quite actively involved in the project and was one of the senior figures on the plaintiff's side.

(b) Mr Ling King Hwa ("Mr Ling") who was the factory manager of Compact Malaysia's plant. Mr Ling was directly involved in the efforts to control the application of the paint once the problems surfaced.

(c) Mr Tan Hua Joo ("Mr Tan") who was an executive director of the plaintiff. His evidence related primarily to quantum issues. I had earlier directed that matters of quantum and liability be bifurcated. Accordingly, in the proceedings before me, only issues of liability were addressed.

(d) Mr Philip Kwang ("Mr Kwang") who was the chief executive officer of Façade. Mr Kwang dealt principally with the management of the problem when it emerged that a satisfactory finish was not being achieved.

8 I also heard evidence from three witnesses of fact and one witness who was tendered as an expert on behalf of the defendant. These were:

(a) Mr Timothy Choong ("Mr Choong") who was the sales manager of the defendant's Malaysian associate company, PPG Coatings (M) Sdn Bhd ("PPG Malaysia") which was the entity that actually formulated and supplied the paint. Mr Choong's evidence related primarily to recounting some of the efforts made by the defendant to assist in the management of the problem.

(b) Mr Tajoruddin bin Mohd Jalil ("Mr Tajoruddin") who was a technical officer employed by the defendant but working with PPG Malaysia. His evidence recounted some of the background to the

selection of the paint in question and the defendant's efforts to formulate this. He also was involved in various trials conducted at PPG Malaysia's plant. He also gave evidence on the development of the reformulated paint in the later part of 2004.

(c) Mr Ong Gee Ou ("Mr Ong") who was the defendant's sales manager. Mr Ong was the principal witness on the defendant's side who was involved at most stages of the project and his evidence covered most issues.

(d) Mr Seah Chin Hin ("Mr Seah") who gave evidence as an expert witness. Mr Seah described himself as a paint manufacturing and coatings specialist who provided business and consultancy services to the coatings industry. The essence of Mr Seah's evidence concerned some of the difficulties in working with paint of the sort in question because of its properties, as well as his understanding of deficiencies in the method of application by Compact Malaysia as derived from records that were provided to him by the defendant.

9 In the course of this judgment, I comment specifically on aspects of the evidence of each of these witnesses as appropriate. I found the witnesses generally to be truthful and attempting to the best of their ability to aid the court's understanding of the events, save that I had some particular reservations over the evidence of Mr Ong and Mr Seah. Inevitably, the evidence of every witness may demonstrate areas of weaknesses. This is often a function simply of imperfect recall characteristic of all human beings. In such cases, the court assesses all the available evidence on a particular issue in the light of facts and documents that are objectively shown to be true and then makes a finding on that issue. In such a case, the rejection of a particular witness's evidence on a given issue signifies nothing more.

10 In relation to the evidence of Mr Ong and Mr Seah however, I did have some difficulties, although for quite different reasons. Dealing first with Mr Seah, Mr Michael Por, who appeared for the plaintiff, took issue with whether Mr Seah could even properly qualify as an expert given his admittedly limited experience in dealing with the sort of paint that was in question in this case. The following extract from Mr Por's cross-examination of Mr Seah is instructive:

Q: Yes. So … you were not working with or you were not part of an organisation that was a PPG applicator?

A: No, no.

Q: Okay. Have you dealt with this particular paint, PPG Duranar paint?

A: No.

Q: You've never dealt with this particular paint?

A: No.

Q: Okay. Before you came to Court, do you know the particular properties of this PPG Duranar paint?

A: Yes, I read the, er, so-called architectural coating manual and a technical data sheet.

Q: I see. That's your only basis? Your only basis for making this opinion is ---

A: That's correct.

Q: --- What was provided to you by PPG based on their specification?

A: That's correct.

Q: Okay. But you have never dealt with their paint, you have never dealt with an approved PPG applicator?

A: No.

Q: Okay. So you do not know what kind of requirements PPG – what kind of specification or requirements that PPG required their approved applicators to meet, you do not know?

A: Er, as I mentioned, I read the architectural coating manual and er, that is a specification guide, which I have digest some of the information.

Q: I see. Only for purposes of this –

A: That's correct.

Q: --- case? Prior to this you have no experience with this at all?

A: No.

…

Q: Prior to this case, right, were you aware of what sort of requirements, right, PPG needed an approved applicator, PPG paint approved applicator, right, to meet?

A: Prior to this case?

Q: Yah.

A: Of course I don't know.

Q: You don't know, right? So your experience really – or rather, the basis for your opinion really is based on whatever information or rather documents that PPG has fed you to prepare for this opinion?

A: That's correct.

11 Mr Por also took issue with Mr Seah's evidence because his opinions were based on documents and information given to him but some of which were not identified or annexed to his report and had not been produced to the plaintiff in discovery. Mr Por noted that Mr Seah was not aware even of the size of the aluminium flakes used in the paint that was initially supplied in terms of whether it was large or small or medium flakes because that information was not included in the literature provided to Mr Seah by the defendant. Yet, as will become apparent in the course of this judgment, that was one of the critical factual elements of the case.

12 Mr Por noted that Mr Seah was unaware what the recommended type of solvent was for the sort of paints in question in these proceedings; or even that some of the reports he had studied were based on trials that involved the reformulated paint rather than that initially supplied; or what the

difference between the two formulations was in terms of whether coarse or fine flakes of aluminium had been used. The following extract from Mr Seah's evidence captures some of these points:

> Q: … Now going back, 40019, was it – were you informed about the formulation the same way – you were shown the formulation card and you see a code for aluminium pigment and that's all you know, there's aluminium inside?
>
> A: That's right.
>
> Q: That's all you know?
>
> A: Yes, that's right.
>
> Q: You do not know the aluminium content?
>
> A: No.
>
> Q: Okay. And that's why I think, where you are concerned, actually in this whole opinion, you do not draw a distinction between coarse aluminium flake or fine aluminium flake. You just treat it as metallic paint with aluminium content.
>
> A: That's right.

13 In my judgment, there was substance in each of these points that Mr Por took. Mr Seah's opinions were based not on his experience working with paints of the nature in question in this case. Rather, his opinions were those of one with some degree of experience in the coatings industry, who reviewed papers and documents supplied to him by the defendant. Taken together with his lack of knowledge of some of the quite basic facts, it left me with the impression that his evidence, even if admissible, was of very little weight.

14 The position with Mr Ong was quite different. Plainly, he had knowledge on many of the issues in the case. However, I found he tended to be evasive at times and on some occasions, I formed the impression that his evidence was derived not from a recollection of what had transpired but rather appeared to me to be rationalised and to be what he thought would serve the defendant's case. My general impression of Mr Ong as a witness was unfavourable to that extent.

15 With those general observations, I turn now to the key facts.

The initial selection of the paint

16 The original paint that had been selected by the architect and that was supplied by the defendant had the code UCM-40019-XLBC. This is referred to in this judgment as "the Original Paint". There were certain features of that paint that bear highlighting. It was a metallic paint but unusually, the aluminium flakes that gave the paint its metallic properties were entirely coarse flakes. These were larger particles of aluminium.

17 It was not disputed that the architect had selected the Original Paint. Mr Narayanan noted in his closing submissions, that this was a customised colour made particularly for the MAS Building project and that it contained exclusively coarse aluminium flakes in order to enhance the paint's sparkling effect when applied on the aluminium panels. What was unclear however, was the detailed background to how the paint in question came to be selected. It was evident that at the early stages

of the project, Façade had submitted some colour samples to the architect and Taisei but the Original Paint was not among those samples. The witnesses who gave evidence on behalf of the plaintiff were all unaware of just what had transpired which led to the architect selecting the Original Paint.

18 Although Mr Lo in his affidavit evidence stated that Façade was given to understand by Taisei that the defendant had submitted the colour sample for the Original Paint to the architect and "promoted this colour" to the architect, there was in fact no direct (or admissible) evidence to this effect.

19 Mr Ong confirmed that the defendant also had submitted some colour samples to the architect from as early as October 2002. However, the Original Paint was not among those the defendant submitted. According to Mr Ong, about a year later, the defendant was requested by a number of paint applicators to supply wet samples of paint which they could spray on to aluminium panels for submission to Façade. The defendant accordingly supplied a number of such samples including at least one which had emanated first from another company known as Rotol Singapore Pte Ltd ("Rotol").

20 Mr Ong testified that Rotol later informed the defendant that a colour proposed by Rotol had been selected. However, Rotol was principally an applicator and given the size of the prospective order, Rotol gave the defendant the formulation for the selected colour and requested the defendant to produce the paint. There were some differences in the shades and tints achieved because of differences in some of the components used by the defendant as opposed to those used by Rotol. As a result, a number of adjustments were needed before the formulation of Original Paint was finalised by the defendant.

21 I accept this part of Mr Ong's evidence. I am satisfied that the plaintiff were not themselves involved in the formulation of the Original Paint. However, I am also satisfied that there was no evidence to bear out the allegation that the defendants had "promoted" this paint to the architect.

22 Facade was informed by Taisei that it was to acquire the Original Paint from the defendant and to use this to prepare some mock-ups. The mock-ups were duly prepared and were approved sometime after March 2004. The plaintiff was then instructed to procure the Original Paint and apply it and the first purchase order for the Original Paint was issued to the defendant on or about 7 April 2004.

The emergence of the problem

23 Sometime in June 2004, the first batch of panels had been coated by Compact Malaysia using the Original Paint. When these were installed on the site, it became apparent that there were certain problems with the appearance of the panels. This was described before me as one of inconsistency in the colour tones. There were a number of aspects to this. First, it appeared that the installed panels appeared to be of a different tone to the samples that had earlier been provided and approved by the architect. Further, it appeared that there were subtle differences as between the panels so that two panels placed adjacently might appear somewhat different. In addition, within a given panel, there appeared to be differences in the tones with the areas along the sides of the panel seemingly brighter than the area in the centre.

24 The installed panels were rejected by the architect and Taisei and this was the start of the dispute.

25 It was not challenged by either party that the panels which had been installed and then

rejected were unacceptable. The dispute centered only on what had caused the problem. Initially, attention was focused on possible deficiencies in the plaintiff's application line but subsequently the suggestion was that the problem was inherent in the paint.

26 Between June 2004 and early September 2004, various investigations were conducted in an effort to find the cause of and a solution to the problem. In the course of these investigations, the defendant produced a number of reports which, Mr Por contended, contained a number of material admissions that the source of the problem was inherent in the paint.

27 The defendant variously maintained that these reports had been prepared under duress or pressure from the plaintiff including in particular Mr Kwang; and that the reports were prepared as part of a joint effort to persuade the architect to approve a change of paint; and further that the real reason this was done was to help the plaintiff overcome deficiencies in the application line at Compact Malaysia's factory. According to the defendant:

(a) metallic paints are somewhat difficult to apply to begin with;

(b) this was compounded because of the tint of the paint in this case, namely red, as well as the fact that the particular metallic properties of the Original Paint had been obtained by the exclusive use of large or coarse aluminium flakes; and

(c) these difficulties could have been managed or overcome with a properly functioning application line and with proper techniques.

28 The plaintiff denied any suggestion of coercion or duress. They did not take issue with the suggestion that metallic paints do require special care in application. However, their principal contentions were that:

(a) they were not aware the Original Paint used only large or coarse aluminium flakes for the metallic properties. Nor were they aware that this could give rise to the sort of problems that were eventually encountered; and

(b) whether or not there were deficiencies on the application line, the inherent nature of the Original Paint was such that for practical purposes an acceptably consistent finish could not be achieved.

The investigations that were conducted

29 I should first make one observation. The plaintiff did not call an expert to opine on the cause of the problem. The defendant did call Mr Seah but as I have noted above, I did not find his evidence to be of particular help. When I questioned Mr Por, he explained that as far as the plaintiff was concerned, it was not necessary for them to adduce any expert evidence given the admissions that they considered had been made by the defendant. The plaintiff was certainly entitled to take that position but it did mean there was a limitation on the material available to me.

30 I now turn to the reports and trials. As I have alluded to above, a number of these were carried out after the problem surfaced and the panels had been taken down and analysed. Some of the reports also concerned observations at Compact Malaysia's application line. I do not propose to analyse each of the reports and trials in detail save to the extent it is necessary to do so in order to arrive at my findings and conclusions.

31 The first report was prepared by Mr Ong on 28 June 2004 and it identified as one of the possible causes of the problems the fact that because of the metallic nature of the paint, the orientation of the aluminium flakes might be such that the colour might appear to vary from different angles. It was not clear if Mr Ong was referring to apparent colour variances between different panels or within a given panel. The presence of the aluminium flakes, it eventually emerged, did contribute to the problem although the suggested explanation contained in the first report did not reveal a full understanding of the precise cause.

32 The matter was discussed at a meeting the next day between representatives from both sides including Mr Lo and Mr Ong. An email was sent after that meeting setting out what transpired. However, it appeared to have been sent to the wrong address and according to Mr Ong, he never received it. There are two points of interest in that email which I think are of some importance. The first is the observation that whereas the panels appeared fine when viewed at eye-level, inconsistent tonality, especially at the sides of each panel which appeared brighter, became apparent when the panels were examined from an angle. Thus a panel which appeared to be consistently toned at eye-level could appear patchy and inconsistent when installed at a height and viewed from the ground.

33 The second point of interest is that the email records that Mr Ong did check the coating process and the quality control procedures and found these to be in order. Mr Ong confirmed his agreement with this when he was cross-examined.

34 A few days later, on 2 July 2004, Mr Ong forwarded to Mr Ling a report prepared by one Mr Fu Raosheng ("Mr Fu"), who was described as the technical services manager for South East Asia from the group of companies of which the defendant was part. Before this was issued to the plaintiff, Mr Fu's report had been circulated in draft among a number of the defendant's staff. It is apparent from the contemporaneous exchanges that the defendant's own personnel (including Mr Ong) were somewhat unclear as to the cause and various possibilities were being examined.

35 Mr Fu was not called as a witness but the report he signed (and which was sent by Mr Ong to Mr Ling) noted the following points among others:

(a) the Original Paint was a special aluminium pigment using coarse and sparkling aluminium flakes;

(b) this gave rise to a strong side view effect caused by the "high scattering" of the coarse flakes as a result of which the colour appeared different when viewed from an angle;

(c) using electrostatic spraying, the distribution of the aluminium pigments would be varied. This was caused by the uneven electric field of a panel with the edges having a strong electrical field. This tended to attract the aluminium flakes which accumulated along the sides.

36 The consequence of this, according to Mr Fu's report, was that the area of the panel along sides would appear different from the rest of the panel when viewed from an angle. There is no doubt that variances within a panel were seen as potentially serious – a point made by Mr Ong in his email of 29 June 2004 to his colleagues. Mr Fu's report noted that efforts would continue to be directed at investigating the root cause of the problem and how to solve it. The process of investigation therefore continued.

37 A further meeting was held on 28 July 2004. A set of minutes was kept of that meeting and sent to Mr Ong who responded with only minor comments. Being a contemporaneous documents seen by both parties at that time, it offers a reasonably good picture of what was discussed at that time.

The meeting reviewed tests and investigations that had been done and it was apparent that:

(a) Various theories were being explored including the possible effects of differences in the thickness of the applied paint on particular panels; the need to increase the colour coat; the possible effect of air temperature and humidity at different times of the day; and the type of solvent use.

(b) One of the defendant's representatives, a Mr Lee, who was not called as a witness and was described by Mr Choong as one of the defendant's technical personnel, commented that colour consistency could be achieved by changing the ratio of coarse and fine aluminium flakes. However, Mr Lee noted that this may cause the colour to appear darker because of the reduction of coarse flakes.

(c) The defendant's representatives confirmed that Compact Malaysia's application methods and process was in full accordance with the defendant's guidelines and was closely monitored by the defendant's technicians.

(d) The defendant still could not "conclusively identify" what the cause of the problem was. The defendant's representatives thought it was likely to be a combination of the extra metallic flake content together with the number of coats required and the nature of the colour.

(e) The defendant's representatives further noted that if the number of coats and the amount of metallic flakes were reduced, so too would the problem with inconsistency.

38 It is evident from this that the idea that the solution to the problem might be found in changing the ratio of coarse and fine aluminium flakes emanated from the defendant. As will become apparent, this in fact was what happened eventually when the approval of the architect was obtained to revise the formulation of the paint by introducing some fine aluminium flakes. Mr Choong under cross-examination suggested that this was done to cater for limitations or deficiencies in Compact Malaysia's application line which made it impossible for it to achieve the desired consistency. In my judgment, this is wrong and I reject it. As is evident from the minutes in question, although some mention was made of variance in thickness this was never put forward as the cause of the problem. Nor was it put forward that the key to solving the problem lay in Compact Malaysia improving or enhancing its application line.

39 On the contrary, at that meeting, the defendant's representatives did accept that Compact Malaysia' application was in full accordance with the defendant's guidelines and that this had been monitored by them. Mr Ong under cross-examination accepted that the defendant had not taken issue with these minutes save in one respect which is not presently material.

40 Over the next several days, various trials were carried out at least some of which involved the application of the Original Paint at Compact Malaysia's plant. There is no denying that the reports prepared during and after these trials reflect some shortcomings in the application. On the other hand, there is also no denying that these reports show that despite the direct involvement of the defendant's personnel including Mr Tajoruddin who prepared a number of the reports and who assisted in the trials that it was not possible to achieve a consistent finish. In some cases, the overall quality was improved but there remained patchiness and inconsistency.

41 Mr Nicholas Narayanan, who appeared for the defendant, submitted that in the course of these trials, the defendant's representatives were in fact assisting the plaintiff by helping to resolve application deficiencies. In my judgment, this is not correct. It is also irrelevant.

42 It is not correct because the context in which matters had got to this stage was that investigations were being conducted to establish the "root cause" of the problem. Plainly, there was a problem with inconsistency. The indications up to this stage suggested that the problem stemmed *inter alia* from the nature of the aluminium flakes used in the formulation of the Original Paint. It is true that the possibility of deficiencies in the application line had not been excluded at this stage. But that is as far as Mr Narayanan could have taken it.

43 In any case, it is irrelevant because clearly, one of the principal objectives of the trials and investigations, was to establish if an acceptable and consistent finish could be achieved without having to change the formulation of the paint. In that context, even if the plaintiff's representatives were assisting with the resolution of any deficiencies in the application line, the question ultimately was whether, with their supervision, it was possible to achieve an acceptable finish. Moreover, the impression I was left with from Mr Tajoruddin's evidence was that the deficiencies he personally found and was aware of were not so significant as to be insurmountable.

44 Mr Tajoruddin also testified that from his experience, if the paint had been formulated with fine aluminium flakes, there would not have been such a problem. However, he stated that this was not something he knew until after the problem had surfaced because this had been the first time he had worked with a paint of this colour using only coarse aluminium flakes. He thought it was this combination of colour and metallic composition that was at the root of the problem.

45 Significantly, Mr Tajoruddin disclosed under cross-examination that by late July 2004, he had been instructed to develop a revised formulation of the paint by incorporating fine flakes. He realised that this would help overcome the problem and his superior officers had asked him to try this. It emerged from his evidence that the Original Paint was in fact only tested on the Compact Malaysia line on one day at the end of July 2004. Subsequently, all tests were done using a revised formulation.

46 In the course of the evidence given by Mr Kwang under cross-examination, he testified that a meeting had taken place on 4 August 2004 at which a consensus was reached that the problem was caused by the "inherent quality" of the paint. According to Mr Kwang, he could not remember who coined the expression but it was understood to mean that the problem lay with the paint rather than with the application. According to Mr Kwang, it was suggested that the root cause of the problem was identified in the fact that the metallic properties of the Original Paint stemmed from the exclusive use of coarse flakes. Mr Narayanan challenged the credibility of this evidence because no reference to it had been made anywhere in the affidavits of evidence-in-chief.

47 I do not regard this as being of great importance simply because it was already apparent from the events that had taken place until then, and from the meeting of 28 July 2004 that the indications pointed towards the problem stemming from the composition of the paint. It would therefore not have been surprising if this was reiterated at a meeting between the parties when Mr Kwang himself got more closely involved. Further, I note that there is a reference in the contemporaneous documents to such a meeting having been held and to Mr Kwang having asked what the real cause of the problem was. It is stated there that the defendant responded that it was probably because of the thickness of the coating due to the large particle diameter of the metallic flakes. I refer further to this letter at [57] below.

48 On 5 August 2004, Mr Lee Thiam Soon, the technical manager with PPG Malaysia issued a report which contained the following points:

(a) the problem with inconsistency applied both within a given panel as well as between

panels;

(b) some changes were suggested and the defendant assigned two personnel to supervise spraying at Compact Malaysia. Following this, better results were achieved but inconsistency remained;

(c) although there was some improvement, the problem had not been solved, and the defendant would propose a formula incorporating fine flakes.

49 There is then the following concluding paragraph:

> The root cause of this issue was most likely due to the nature of the color that is very sensitive and not user friendly. There is an 'inherent quality' of the finishes and subtle differences one sees when viewing the cladding from various perspectives and distances. The differences of individual panel are not noticeable on the ground level but unfortunately the differences are beyond acceptance from the building.

50 The defendant's principal complaint is that this language was not in the original draft report and that it was put in at least in part under the influence or at the instigation of Mr Kwang.

51 The same complaint is made in relation to another report issued by Mr Lee on 9 August 2004 which contains the following statements:

> There is an 'inherent quality' of the finishes and subtle differences one sees when viewing the cladding from various perspectives and distances. The differences of individual panel are not noticeable on the ground level but unfortunately the differences are beyond acceptance from the building. Ironically, we do not notice a similar problem from the mock-up sample.
>
> On 7/8/04, PPG again tried to settle this issue by modifying the color to a more user-friendly type. PPG also recommended a new thinner to apply. We managed to improve further the colour consistency …
>
> Our suggestion is the modified color is a practical solution. If the architect can accept the color applied on 7/8/04 then we can proceed to supply the mass production paint within one week to Compact …
>
> On why PPG never inform architect of the issue of the selected coating system, we would like to highlight that the paint requested by architect warrants a special color and formulation. At the pre-tender submission, we were not aware that the color selected would have such a inherent problem. Therefore, there is no reason to advise otherwise. Similarly at the post award stage, beginning with sample submission, we were not aware that we are likely to face such insurmountable problem with the color although we have advised the applicator that it will be a difficult color to handle. Therefore, again, there is no reason to advise otherwise.
>
> We would like to remind that due to architect preference for the custom color that is exotic and highest in sparkling brightness, PPG have supplied the paint in good faith that it will be a workable solution. However, PPG have since come to realise that the color is inherently beyond practical level of management to achieve the desired effect for color consistency and uniformity. PPG have come to the final conclusion that the modified color with a lower sparkling and brightness, albeit with darker tone, will practically resolve the problem by removing the inherent issue.

It is therefore PPG suggestion is to strongly recommend the modified color for MAS project.

52 It is indeed evident from the documents and from the emails exchanged at that time that these two reports were shaped to some degree by representations made by the plaintiff's representatives, in particular Mr Kwang. It is evident from earlier drafts of both these documents that the defendant was looking to express a view that was less robust in finding any deficiency inherent in the paint and more open to the possibility that there might be issues with the application. It is also evident that the plaintiff was facing pressure from Taisei.

53 This is to be balanced against the evidence, on the other hand, of Mr Tajoruddin that I have referred to at [45] above as well as from the contemporaneous documents which establish that by this stage, the defendant had experimented with a formulation using some proportion of fine flakes and found this produced a better finish. In my judgment, after observing the trials on the Compact Malaysia application line, the defendant's representatives had seen that the difficulties were such that achieving a finish of acceptable consistency was not something that could readily be achieved simply by measures being taken at the application line.

54 The challenge, in the circumstances, was securing the architect's agreement to accepting a revised formulation which might result in a more consistent finish though perhaps with some compromise on colour or degree of sparkle. In my judgment, this was seen as the practical solution by both the plaintiff and the defendant. I am satisfied that Mr Kwang was trying to get a united position put across to the architect to this end. Under cross-examination, Mr Kwang testified that this effort, in part, developed as a result of an email he received from Taisei urging that a united front be presented if the architect were to be persuaded.

55 Having considered the totality of the evidence including Mr Kwang's and the plaintiff's efforts to influence the way these reports were framed, I do not consider that any of this detracts from the acceptance reflected there that the only practical solution was to change the formulation.

56 This was also reflected in a further report issued by Mr Lee on 16 August 2004 where it was noted as follows:

> Given the stringent control during application, the colour is yet to achieve a desired colour and consistency. This implies that the colour is beyond practical level of management.
>
> It seems like the colour is sensitive and not easy to spray. Ironically, we do not notice the problem from mock-up sample. There is an 'inherent quality' of the finishes and subtle differences one sees when viewing the cladding from various perspectives and distances.

57 This too, was written following representations from the plaintiff but there is nothing to suggest that it was not true. Furthermore, on 20 August 2004, Mr Matsuo Inagaki ("Mr Inagaki"), also a technical manager with PPG Malaysia, in a communication to Taisei, directly made the following observations:

(a) The problem was unforeseeable and it was caused by the material used;

(b) This particular formulation had never been used previously;

(c) The application could not be done any better to achieve sufficient consistency;

(d) The only solution was to use a revised formulation which included fine flakes; and

(e) Technically, it was not possible to solve the problem without changing the formulation.

58 Mr Choong under cross-examination accepted that he was made aware of what Mr Inagaki proposed to set out in his email to Taisei. He further confirmed that he did not have any issue to take with the contents of this note.

59 Similarly, Mr Ong was taken under cross-examination to the various reports. He confirmed *inter alia*:

(a) that he agreed with the contents of Mr Fu's report of 2 July 2004;

(b) that he agreed with the contents of Mr Lee's report of 5 August 2004. He further accepted that Mr Lee had concluded after the trials on the site that the desired consistency could not be achieved even with stricter control of the line and that the solution was to revise the formulation by including fine flakes;

(c) that he agreed with the contents of Mr Lee's report of 9 August 2004 including, the portions added following Mr Kwang's suggestion (see [116] below); and

(d) that he agreed with the contents of the whole of Mr Lee's report of 16 August 2004 (see [116] below).

60 In those circumstances, the whole question of the alleged pressure brought to bear by Mr Kwang or Mr Ong becomes irrelevant because Mr Ong was quite prepared to and did accept that he stood by the contents of these documents.

61 In my judgment, it had become apparent from the various tests that it was not possible using Original Paint to achieve a finish of acceptable consistency and I so find. The defendant suspected this from early July and by the end of that month had started testing a revised formulation.

The new paint

62 Following a number of meetings and submissions to the architect, sometime towards the end of September 2004, the architect's approval was obtained to change the formulation. The new paint bore the code UCM-40023-XLBC. It included a proportion of fine aluminium flakes. I refer to this as "the New Paint". It was not in dispute that a number of trials had to be done on the application line with the New Paint. These continued until mid-November 2004.

63 It was not in dispute that the New Paint was to be mixed and supplied in a single batch so that there would be no variation from one batch to the next. This was specifically mentioned when approval was given to change the formulation of the paint. Some 7300 litres were to be supplied on this basis.

64 Several complaints were raised by the plaintiff in relation to the New Paint. These were as follows:

(a) that the defendant breached the requirement to produce the paint in a single batch and some colour variation problems persisted initially;

(b) that the defendant had used old ingredients some of which had exceeded the permitted shelf life in formulating the New Paint;

(c) the defendant was testing and ascertaining the proper line parameters to enable consistency to be achieved in mass production. This included experimenting with the appropriate solvent;

(d) in the face of continuing difficulties with achieving consistency, Compact Malaysia developed its own parameters and by mid-November 2004, it was able to achieve consistent finishes; and

(e) episodic instances of paint having to be rejected on account of colour differences continued after November 2004.

65 It is apparent from the contemporaneous documents as well as from the evidence led before me that even after the architect had approved the use of the New Paint in late September 2004, problems continued for some time as efforts were undertaken to achieve a consistent finish. In relation to what caused this, various points were explored in the evidence.

66 Mr Por did examine Mr Tajoruddin on the suggestion that some of the ingredients used exceeded the permitted shelf life of two years. However, this evidence was at best inconclusive. Mr Tajoruddin himself explained that ingredients could be and had been used by him even where the permitted shelf life had been exceeded. The ability to do so without compromising quality depended upon such variables as storage conditions and would be subject to a quality control check being done before use. There was nothing in the evidence before me to show that any such ingredients were in fact of such a condition as to be unusable or that the use of these materials in fact caused the difficulties with the initial attempts to achieve a consistent finish. Indeed, the fact that the plaintiff was able eventually to achieve an acceptable finish suggests the opposite. I therefore disregard this.

67 However, Mr Por's other complaints had rather more substance. It was not in dispute that the New Paint was to be produced in a single batch. In fact, according to the defendant because of the quantity being ordered they had to use two tanks. In an attempt to meet the single batch requirement, the defendant had the two tanks connected by a pump with the intention that the paint should be stirred and circulated through the two tanks to achieve a homogenous finish. From documents produced by the defendant in the course of discovery, it became apparent that internally at least, the defendant's representatives were aware that this was not an optimal solution because of the risk that the flow rate and mixture in each of the tanks might not be identical. This was not disclosed to the plaintiff at the time approval was being sought (and obtained) for the reformulation of the paint.

68 Under cross-examination, Mr Choong accepted that, in substance, the defendant had not complied with the single batch requirement. When a colour variance problem was identified in early December 2004, it was suggested by the defendant's representative that this had been caused by a possible fault in the pump. Mr Tajoruddin on his part seemed to suggest that the pump might not in fact have broken down but his evidence on this was not entirely clear. In any case, what did emerge from the evidence of Mr Choong and the defendant's internal documents was that there were practical problems with achieving a consistent homogenous colour if the paint was produced in two tanks even using a pump to circulate the paint between the two tanks, and where the pump was faulty the difficulties were inevitably aggravated. In my judgment, the defendant did fail to produce the paint in a single batch and this did at least contribute to the difficulties initially encountered with the New Paint.

69 More importantly, it was clear from the evidence, in particular that given by Mr Tajoruddin, that the initial trials that were conducted by the defendant's representatives used a solvent that was

wetter and hence dried differently than that recommended by the technical guidelines issued by PPG Industries Inc in the United States. It was further established that sometime in November, the plaintiff departed from the recommendations of the defendant and used a drier solvent which was more in line with the technical guidelines issued by PPG Industries Inc and this then enabled them to establish better and more consistent results.

70 I have already noted that the idea of using a revised formulation which included fine aluminium flakes to overcome the problem faced with the use of the Original Paint emanated from the defendant. In my judgment, it was apparent from the evidence and the contemporaneous correspondence that:

(a) After the architect had approved the use of the New Paint, there was a period of time until early November 2004 when the defendant took the lead in trying to establish the combination of line parameters and solvents that would optimise the results using the New Paint.

(b) Some deficiencies continued to be pointed out in relation to the Compact Malaysia application line. However, these deficiencies were not of a serious nature.

(c) The problem was caused at least in part by the solvent initially recommended by the defendant.

(d) The difficulties were eventually overcome when the plaintiff elected to use its own line parameters and solvent.

(e) However, there were problems at least on occasions in December 2004 with colour variations in the paint supplied by the defendant.

The applicable legal principles

The terms of the contract

71 I turn to consider the relevant legal principles. It was common ground that the only written contractual documents that governed the relationship between the parties were a series of purchase orders issued by the plaintiff. These simply described the paint being ordered, the quantity and the price and contained the following term:

Important : Buyer reserves the right to reject goods if it does not conform to specifications or quality. Buyer also has the right to reject goods that are not delivered on time or within a reasonable period of time. All supplier's invoices and delivery orders must bear the above P. O. No.

72 Mr Por submitted that in addition, the following terms were to be implied into the contract:

(a) that the Original Paint should be reasonably fit for the purposes for which the plaintiff required it, namely to be consistent in the tonality of the colour upon application to the panels such as would be acceptable by Taisei or the architect;

(b) that the Original Paint should be of satisfactory quality; and

(c) that the Original Paint should conform with the sample furnished by the defendant.

73 It was contended that these were to be implied either by operation of law or in order to ensure

business efficacy. As it transpired, both counsel confirmed that these provisions were to be understood as referring to the implied conditions arising by operation of ss 14(3), 14(2) and 15 respectively of the Sale of Goods Act (Cap 393, 1999 Rev Ed) ("the Act").

74 Mr Narayanan's principal arguments on this issue may be summarised thus:

(a) where express terms have been included in a contract which governs the relevant rights and liabilities, there is no occasion for any terms to be implied dealing with the same subject matter. In effect, the parties should be taken to have contracted out of the provisions of the Act; and

(b) in any event, there was no basis to imply the terms sought by the plaintiff as they are neither necessary nor mandated by considerations of business efficacy.

75 Mr Narayanan made some other submissions as to the meaning and content of the conditions under the Act were I to hold that these were to be implied into the contract. I turn to those later.

76 The starting point of the analysis on the threshold inquiry as to whether the conditions contained in the Act are to be implied into the contract between the parties before me is s 14 of the Act. For convenience, I set out the relevant portions of the Act:

Implied terms about quality or fitness

14. — (1) Except as provided by this section and section 15 and subject to any other enactment, there is no implied condition or warranty about the quality or fitness for any particular purpose of goods supplied under a contract of sale.

(2) Where the seller sells goods in the course of a business, there is an implied condition that the goods supplied under the contract are of satisfactory quality.

(2A) For the purposes of this Act, goods are of satisfactory quality if they meet the standard that a reasonable person would regard as satisfactory, taking account of any description of the goods, the price (if relevant) and all the other relevant circumstances.

(2B) For the purposes of this Act, the quality of goods includes their state and condition and the following (among others) are in appropriate cases aspects of the quality of goods:

(a) fitness for all the purposes for which goods of the kind in question are commonly supplied;

(b) appearance and finish;

(c) freedom from minor defects;

(d) safety; and

(e) durability.

(2C) The condition implied by subsection (2) does not extend to any matter making the quality of goods unsatisfactory –

(a) which is specifically drawn to the buyer's attention before the contract is made;

…

(3) Where the seller sells goods in the course of a business and the buyer, expressly or by implication, makes known -

(a) to the seller; or

(b) where the purchase price or part of it is payable by instalments and the goods were previously sold by a credit-broker to the seller, to that credit-broker,

any particular purpose for which the goods are being bought, there is an implied condition that the goods supplied under the contract are reasonably fit for that purpose, whether or not that is a purpose for which such goods are commonly supplied, except where the circumstances show that the buyer does not rely, or that it is unreasonable for him to rely, on the skill or judgment of the seller or credit-broker.

77 It is apparent from s 14(1) of the Act that no condition or warranty as to the quality or fitness for purpose of goods sold is to be implied into any contract for the sale of goods except as provided in ss 14 and 15 of the Act. Insofar as s 14 is concerned, a condition as to quality or fitness for purpose may be implied in two situations.

78 Under s 14(2), there is an implied condition that the goods supplied are of satisfactory quality where they are sold in the course of business.

79 Under s 14(3) a condition that the goods are reasonably fit for a particular purpose even if they are not commonly supplied for that purpose will be implied if the goods are sold in the course of a business and the seller is made aware of the particular purpose in question.

80 There is no dispute that the paint in question was sold by the defendant in the course of its business and so *prima facie* it would appear that at least the condition specified in s 14(2) is to be implied. To the extent the defendant contended that the terms were inapplicable it was incumbent upon the defendant to show that the terms were not to be implied or that the parties had in fact expressly contracted out of these terms. The applicable principle was articulated by GP Selvam J in *MCST Plan No. 1166 v Chubb Singapore Pte Ltd* [1999] 3 SLR 540 ("*Chubb*") where he noted as follows at [65]-[66]:

Consequences of implication of terms by law

65 There are three significant consequences of the implication of terms by law as mentioned above, be it common law or legislation. The first is succinctly summarised in Breach of Contract by JW Carter (2nd Ed, 1991) at para 226:

Onus of proof

Onus of proof. Where, in a particular contract, a term is normally implied in law, the onus is on the party alleging that the term should not be implied. Evidence of exclusion must be produced, for example by pointing to the special circumstances of the case or a term in the contract. Certainly this is the position where the contract is of a type to which a term has, in the past, been implied. For example, in a commercial sale of goods the onus will be on the seller to prove that no term of merchantable quality should be implied into the contract.

Consequence no 1: onus of proof

66 Further at para 229, the writer adds the following pertinent comment:

> In view of the onus of proof, the terms referred to above will be implied unless the circumstances of the case indicate that it would be unreasonable or unjust to imply them. Alternatively, it must be established that implication will result in inconsistency with other terms in the contract. In the case of contracts for work and materials, where the implied term of fitness for purpose is distinct from the implied term as to quality, the exclusion of one of the terms does not of itself prevent the other being implied.

81 This explains why Mr Narayanan's second submission (at [74] above) is not sustainable. Where one is dealing with terms to be implied by virtue of a statutory provision, the inquiry is not whether such a term is necessary or reasonable. Rather, it is incumbent on the party seeking to resist the implication of the term to show that it would be unreasonable or unjust to imply the term.

82 The following passage from the judgment of Selvam J in *Chubb* at [94] is instructive in explaining the rationale underlying this approach in the context of commercial contracts for the sale of goods:

> … In *Barr v Gibson* (1838) 150 ER 1196 a ship was sold while on voyage. She then stranded, though she was not a total wreck. Parke B said at page 1200 'In the bargain and sale of an existing chattel, by which the property passes, the law does not, in the absence of fraud, imply any warranty of the good quality or condition of the chattel so sold'. In the 150 yrs since Baron Parke spoke those words, the legal barometer has changed both in respect of used as well as new custom-built goods. See *Crowther v Shannon Motor Co* [1975] 2 All ER 972; [1975] 1 WLR 30 (Court of Appeal) a case on the sale of a used car. Today the policy of the law is very much in favour of the consumer. Both the common law and legislation have changed so much so that the doctrine of caveat emptor has virtually evanesced from the scene of sale and supply of goods. Today in sale of goods and other cognate contracts the applicable principle is 'seller beware' (caveat venditor). Where the seller is averse to the implied warranties he should, when allowed by law, contract out of them. In this case the defendants had not contracted out of them. The implied terms under statute and common law, therefore, applied with full force and effect against the defendants.

83 There was certainly no basis before me to contend that the parties had expressly contracted out of the terms of the Act and in fairness, it should be said that Mr Narayanan did not put his case at so high a level. The real issue was whether there was anything in the express terms which were inconsistent with these terms so as to make it unjust or unreasonable to imply them. In my judgment, there was no such inconsistency.

84 In fact, the nature of the contract in the present case with its paucity of express terms makes it a prime case for the terms prescribed by the Act to be implied. The material express terms that were contained in the purchase order were these:

(a) the buyer has the right to reject goods that do not conform to specifications;

(b) the buyer has the right to reject goods that do not conform to quality; and

(c) the buyer has the right to reject goods that are not delivered on time.

85 None of these terms are so inconsistent with the conditions prescribed in s 14(2) or (3) of the Act so as to make it unjust or unreasonable to imply them. On the contrary, they either echo or supplement the rights prescribed by the Act.

86 Mr Narayanan relied on the decision of Lai Siu Chiu J in *Flairis Technology Corporation Ltd v Gan Huan Kee* [2002] SGHC 116 ("*Flairis Technology*") in support of the proposition that where express terms comprehensively cover by contracting parties' rights and liabilities, there is no room for the imposition of an implied term. In my judgment, *Flairis Technology* is distinguishable from the present case on at least the following bases:

(a) that was not a case concerning a commercial sale of goods at all. Rather, *Flairis Technology* was a case concerning an application for injunctions restraining the defendants from carrying on a competing business and from using confidential information;

(b) the statement of Lai J at [81] of the judgment which is relied on by Mr Narayanan is undoubtedly correct in its context. However, it is not directly relevant to a case such as the present where the issue is whether terms which are ordinarily to be implied by virtue of a statute are to be excluded for some reason; and

(c) the agreements in question in Flairis Technology were lengthy and comprehensive. By no stretch could this be said of the purchase order in question before me.

87 I therefore do not see any basis for excluding the application of the conditions prescribed by the Act to the extent these are applicable.

88 Before turning to the analysis of the relevant terms, I should make one further point. Mr Por submitted that where one is concerned with terms implied under the Act, then liability for any breach is strict in nature. It is irrelevant whether the defendant had exercised reasonable care or skill if he fails to deliver that which he is bound to. In my judgment, this is correct and it is well articulated as follows by Selvam J in *Chubb* at [67]:

> The next point of importance is that when a term as to quality and fitness is implied into a contract for sale or supply of goods or work and materials, it attracts the strict liability rule as regards goods and materials. As I have stated earlier, this means that contractors are liable even for latent defects in chattels. They are almost like insurers liable for defects in the goods, even though they could not detect them by reasonable care and skill; that they acted with reasonable competence is no defence. Take for illustration the case of *Wren v Holt* [1903] 1 KB 610. Beer was sold by the defendant publican. Nothing less than an analysis by an expert could have revealed that arsenic was dissolved in the beer. This did not prevent liability being incurred by the publican. The justification for this proposition was simply that he had not delivered what he undertook under his contract.

Conformance with samples

89 I first consider Mr Por's submission that the Original Paint should comply with samples that were approved by the architect.

90 Section 15(1) and (2) of the Act provide as follows:

> 15. — (1) A contract of sale is a contract for sale by sample where there is an express or implied term to that effect in the contract.

(2) In the case of a contract for sale by sample, there is an implied condition –

(a) that the bulk will correspond with the sample in quality;

…

(c) that the goods will be free from any defect, making their quality unsatisfactory, which would not be apparent on reasonable examination of the sample.

91 Mr Por submitted that the contract of sale for the Original Paint was a sale by sample because the defendant had supplied a colour sample to the architect who had approved it. He relied upon another decision of GP Selvam J, in *Ceramic Brickworks (S) Pte Ltd v Asia-Tech Construction & Engineering Pte Ltd* [1996] 1 SLR 200 ("Ceramic Brickworks") in support of the proposition that a sale based on a sample submitted for the architect's approval could constitute a sale by sample.

92 In my judgment, *Ceramic Brickwords* is distinguishable from the present case on three bases. First, Selvam J's primary holding in that case was that the contract there was expressly provided to be a contract for sale by sample. The contract in question included the words "as per sample" which had been inserted by hand. Selvam J noted as follows at 204:

> In *Re Walkers Winser & Hamm and Shaw, Son & Co* [1904] 2 KB 152 it was accepted and the court impliedly affirmed that an express provision that barley sold to be 'about as per sample' constituted a contract by sample. … The provision in the contract in the present case was a stronger case of a sale by sample because it was without the word 'about' and it was in handwriting. Handwritten words in a typewritten document have a stronger effect.

93 In the present case, there is no such express provision in the contract.

94 Secondly, Selvam J did find in the alternative that the contract was one for sale by sample on the basis of an implied term but he reached this conclusion because of the particular facts of the case. As he noted at 205:

> Next, even without those words "as per sample' the evidence made it clear that there was an implied term to the effect that there was a sale by sample. …
>
> Mr Blomfield's uncontradicted evidence was that he signed the contract only after sighting the samples and getting approval of the samples. The very fact that Mr Blomfield asked for a sample to be produced before signing the contract would have made it abundantly clear to Mr Quintus Ong that the contract was being signed on the basis of the sample.

95 These facts are considerably removed from those before me.

96 Thirdly, the goods in question in *Ceramic Brickworks* were bricks. The sample itself was a brick. This had been discussed between the parties and had been seen and approved by the architect. In the present case, the so-called sample was not of the paint in the form it was to be supplied by the defendant. The architect had never seen or approved this. The sample referred to by Mr Por was a number of finished panels. Those were not even available to me in the trial and there was therefore no basis for me to make a finding on this in any case.

97 For these reasons, I do not consider this was either expressly or impliedly contracts for sale by sample.

98 Mr Por also relied upon some mock-up panels that were approved by the architect after the colour had been selected and suggested these could serve as the relevant samples. This too was misconceived. First, as I pointed out to Mr Por, a sample that was agreed as a reference standard after the contract had been concluded would not ordinarily be relevant to a contract for sale by sample since a contract would generally not be concluded without the subject matter being agreed. Secondly, and in any event, these panels also were not produced before me in the trial.

99 There is a further practical problem with this part of the plaintiff's case. As Mr Narayanan submitted, there was simply no evidence at all that the paint that was in fact supplied by the defendant did not conform to any samples that had been supplied. There was no evidence to show that the formulation of the Original Paint as supplied was different to the formulation of the paint applied on the finished samples. Further, there was no evidence to show what the appearance of the finished samples approved by the architect would have been if viewed from a similar angle as the panels that were later installed on the site and rejected by the architect and Taisei.

100 Accordingly, the plaintiff does not succeed on this basis.

Quality and fitness for purpose

101 I have already found that this was a contract for sale in the course of business. By virtue of s 14(2) of the Act which I have found is not excluded in the present case, there is a requirement that the goods be of satisfactory quality.

102 This standard was introduced following amendments which among other things replaced the previously used standard of "merchantable quality". The standard of "satisfactory quality" is explained in ss (2A), (2B) and (2C) of the Act. In my judgment, the combined effect of those provisions include the following that may be relevant to the instant case:

(a) The inquiry whether the goods are of a satisfactory quality is an objective one to be undertaken from the view point of a reasonable person.

(b) The reasonable person in question is one who is placed in the position of the buyer and armed with his knowledge of the transaction and its background rather than one who is not so acquainted – *Bramhill v Edwards* [2004] 2 Ll Rep 653 at [39] ("*Bramhill*").

(c) The burden of proof in this case is on the plaintiff who is alleging that the goods are not of satisfactory quality – see *Bramhill* at [41].

(d) The inquiry is a broad based one directed at whether the reasonable person placed in the situation of the buyer would regard the quality of the goods in question as satisfactory.

(e) At every stage of that inquiry, the Act clearly contemplates that the court should consider *any and all factors* that may be relevant to the hypothetical reasonable person. The Act does provide some practical guidelines to aid in structuring the inquiry.

(f) Thus, in relation to the actual quality of the goods in question, s 14(2B) of the Act provides a non-exhaustive list of the aspects of quality to be considered. Further, in relation to evaluating whether that quality is satisfactory, s 14(2A) of the Act provides a similarly non-exhaustive list of two factors, namely the way in which the goods may have been described and the price to be paid for it.

(g) In considering the quality of the goods in question, it may be noted in particular that the first aspect to be considered is whether the goods are fit for *all* the purposes for which goods of that kind are commonly supplied. This is a higher standard than previously applied – see *Benjamin Sale of Goods* (A.G. Guest, Gen Ed) (Sweet & Maxwell, 7th Ed, 2006) at 11-038.

(h) To the extent that goods are unsatisfactory in any way and that aspect had been specifically conveyed to the buyer prior to the contract, or the buyer had examined the goods (or a sample in the case of a contract for sale by sample) and such examination ought to have revealed it, then the condition does not extend to that. This is provided for in s 14(2C) of the Act.

103 Finally, I should also refer to s 14(3) of the Act (see at [76] above). For present purposes, it may be noted that the provision becomes relevant where the buyer expressly or impliedly makes known to the seller that the goods are required for any particular purpose, then a condition shall be implied that the goods are reasonably fit for that purpose whether or not that is a purpose for which such goods are commonly supplied. The seller may exclude such liability if it establishes that the buyer does not rely or may not reasonably rely upon the seller's skill or judgment.

104 Section 14(3) imposes a duty on the seller to provide goods that are fit for the particular purposes for which they were sought by the buyer. The point is explained by Selvam J in *Chubb* albeit in the context of the previous provisions concerning "merchantable quality" and the following passage at [62] of that judgment is instructive:

> The statutory provisions as to merchantability and fitness for purpose govern distinct factual scenarios. Merchantability governs the sale of a particular thing which can be applied to a range of possible uses. Purchase of a general purpose ship would be such a sale as long as it can carry some cargo. The essence of s 14(2) is that if anything is sold by someone who is in the business of selling such goods, there is a warranty of good quality written into the contract. So if the thing sold does not measure up to such quality the seller is liable unless there is an effective exemption clause to relieve him from liability. Fitness for purpose governs the sale of a particular thing whether ascertained or not, for a particular purpose, say a passenger ferry in the North Sea. It must be fitted with the necessary equipment to withstand the weather conditions there. The word 'particular' in this context should be understood to mean 'given', 'disclosed' or 'ascertained'.

105 Mr Narayanan submitted that the key requirement is a showing that there had been reliance by the buyer upon the seller. However, Mr Narayanan also accepted that once a particular purpose was made known to the seller, it would be assumed that the buyer relied on the seller.

106 In my judgment, there are two aspects to this. First, in matters such as the choice of components, the nature and properties of which are within the skill and judgment of the seller, the seller assumes the responsibility and there is no need to show reliance – see *Chubb* at [51] citing *Cammell Laird & Co Ltd v Manganese Bronze and Brass Co Ltd* [1934] AC 402.

107 Secondly, as noted in *Benjamin's Sale of Goods* (see [102(g)] above) at 11-059:-

> **Reliance need not be shown but may be rebutted.** Section 14(3) assumes that where the buyer makes known any particular purpose for which the goods are being bought (these words being widely interpreted as above indicated) there is reliance on the seller. An exception is, however, made where the seller can establish indications to the contrary: "where the circumstances show that the buyer does not rely, or that it is unreasonable for him to rely, on

the seller's skill or judgment". *It seems that it is not, therefore, necessary for the buyer to allege reliance in his particulars of claim: it is for the seller to allege in defence and prove that there was no reliance, or that reliance was unreasonable*. Thus if it can be shown that the seller made it clear to the buyer that he (the seller) did not purport to exercise skill or judgment, the subsection will normally be excluded. The reverse was the case under the original Act of 1893.

[emphasis added]

108 Put simply, once the purpose is conveyed to the seller, reliance on the part of the buyer need not be shown but it may be rebutted and it is for the seller to do this.

109 Turning to the case at hand, the relevant facts are these:

(a) The Original Paint had been supplied by the defendant in the course of its business.

(b) It was not disputed that the defendant knew that the Original Paint was to be used for the MAS Building project. Mr Ong stated that he was approached by the architect in 2002 to submit colours for this project. He stated under cross examination that he did meet the architect's representative in 2002 and was informed that he wanted a metallic colour for the MAS project.

(c) Mr Ong accepted that that the Original Paint was a customised paint formulated by the defendant and not a standard colour included in the defendant's general colour charts. The nature and properties of the ingredients used in formulating the paint were plainly within the defendant's sphere of responsibility.

(d) He indicated under cross-examination that he learnt from Rotol that the architect wanted a "big sparkle metallic paint, exotic in colour as well as [with] maximum reflective and sparkle qualities".

(e) It was not disputed that the defendant knew that when the plaintiff ordered the Original Paint, it was for use in the MAS Building project. As I have noted above, Mr Narayanan accepted that it was a customised colour made particularly for the MAS Building project.

(f) The Original Paint had never been used anywhere else.

(g) Mr Ong also confirmed under cross-examination that the defendant was informed that the Original Paint had been approved and they were then approached by the plaintiff who placed an order.

(h) Mr Ong contended that he knew about the strong side-view effect of the Original Paint from the outset and that he had informed Mr Ling about the difficulties with the Original Paint in February or March 2004. I reject his evidence on this score. Mr Ong was unable to satisfactorily explain how he could recall in the course of the hearing before me that he had communicated these concerns to Mr Ling in 2004 when in the minutes of a meeting in July 2004, he stated that he could not recall who he had spoken to. Further, Mr Ong claimed he had informed Mr Ling that the Original Paint was difficult to apply because it contained only coarse aluminium flakes. However, he apparently did not inform his colleague, Mr Choong of these concerns. Most importantly, it is evident from the various investigative reports prepared on behalf of the defendant at the material time, and from an email written by Mr Ong himself on 29 June 2004 that the link between the inconsistency problem in particular the strong side view effect and the use of only coarse aluminium flakes in the Original Paint was not understood or foreseen by anyone on

the defendant's side until late June or early July 2004. In my judgment, even though this was a matter within its responsibility, the defendant simply did not foresee that the application of the Original Paint would have the effects that were later encountered on the site and which led to the rejection of the panels that were installed.

(i) The panels were rejected because of inconsistency in tonality as between panels as well as within particular panels. It has never been suggested that the finish in fact achieved with the use of the Original Paint was acceptable. On the contrary, there are several statements in the reports prepared on the defendant's behalf at the material time that accept that the finish in fact achieved was not acceptable. Moreover, the entire thrust of the defendant's case was that the finish was unacceptable because of deficiencies in Compact Malaysia's line. I have already found at [61] above that on the evidence before me, it was not possible to achieve a consistent and acceptable finish using the Original Paint.

110 On these facts, in my judgment the Original Paint was not of satisfactory quality. It is clear in my view that a reasonable person in the position of the plaintiff and with knowledge of the relevant background should have expected the paint supplied by the defendant to be such as to be capable of being applied on the panels and producing a consistent finish. Given the prestigious nature of the project and the time taken to select the desired colour it is inconceivable that a reasonable person would have found that Original Paint to be of a satisfactory quality if it was not possible to achieve an acceptably consistent finish using it.

111 Equally, the Original Paint was not fit for the purpose for which it was acquired, namely to be used at the MAS Building project. There is no doubt that the defendant knew that the paint was being acquired by the plaintiff for use on that project at the time it was ordered. This was even stated on the purchase order.

112 The question then is whether the defendant was able to show that the plaintiff was *not* relying or could not reasonably rely upon the defendant's skill and judgment to produce a paint that was capable of being applied so as to produce a consistent and acceptable finish. The defendant might have discharged this burden for instance by establishing that it knew from the outset that it would not be possible to achieve consistent tonality using the Original Paint and had communicated this to the plaintiff prior to the parties entering into the contract. However, I have found that the defendant itself did not know this at the outset and also that it did not communicate any such thing to the plaintiff. Further, in my judgment, the plaintiff did not know at the time of the contract that the Original Paint derived its metallic properties exclusively in coarse flakes. Nor was there any evidence to sustain a finding that assuming the plaintiff had known this, it also knew what the consequences of this would be. Indeed, it is inconceivable that it would have known the consequences given the novelty of this formulation and the fact that even the defendant was taken by surprise.

113 Mr Narayanan's principal responses to this were as follows:

(a) The defendant's only obligation was to supply the plaintiff with the paint that was ordered pursuant to the purchase orders.

(b) The so-called inherent problem related to the exclusive use of coarse aluminium flakes in the Original Paint which gave rise to a strong side view effect when the finished panels were viewed at a distance or at an angle. This was an attribute of the paint which could have been overcome by proper application techniques. Reference was made to the evidence of Mr Lo, which according to Mr Narayanan, appeared to accept that at least some of the problems encountered with the Original Paint in June 2004 were due to deficiencies in the applicator's line operations.

Reference was also made to the evidence of Mr Ling that the problem arose when using an electrostatic gun and could be overcome by the use of dummy panels surrounding the actual panel being sprayed so that the aluminium flakes accumulated at the edges of the dummy panel, which the plaintiff did not do save when applying the New Paint.

(c) Insofar as the plaintiff relied upon the so-called admissions contained in the reports and other letters issued by the defendant's representatives, these were shaped by Mr Kwang in particular who was pushing for the architect to accept the New Paint. Further, to the extent Mr Ong appeared under cross-examination to accept the content of these reports, in fact his agreement was only related to the fact that these documents were issued by the defendant who amended them to reflect Mr Kwang's wishes.

(d) The defendant's expert, Mr Seah, gave evidence on a number of points. He stated that metallic paint was not easy to apply. Application was just as important as the chemistry of the paint. Further, because there were several coats to be applied each coat required stringent control. Furthermore, metallic colour finishes are more sensitive to colour change under different application methods and conditions. In the absence of any expert from the plaintiff's side to refute this, I should accept this evidence from Mr Seah.

(e) In this regard, Mr Narayanan submitted, it was relevant that the plaintiff ordered and used some 200 litres of Original Paint in early 2005 for the internal walls of the MAS Building. This showed that the plaintiff realised that there was nothing in fact wrong with the Original Paint.

114 I have touched on some of these issues already but for completeness, I now consider and address each of these points. Dealing with the first point, this is wrong because it wholly ignores both the express as well as the implied terms of the contract. I have set out in detail why the statutory terms in particular do apply in this case. I would only mention in addition the following passage from the judgment of Selvam J in *Chubb* at [90] where he considered and rejected the identical argument advanced on behalf of the sellers there:

I shall now consider the defences of Chubb. First it was contended that their only obligation was to supply install, test and commission the videophone system in accordance with the technical specifications specified by UPC. In my opinion, this is a blinkered view which failed to take in the total picture. It ignored the very important implied terms which the common law and the statutory provisions have imposed on them. The only defence the defendants could possibly raise was to show that the implied terms did not apply because they had contracted themselves out of the implied terms. That was not the case here. The implications of good quality and fitness for purpose are fortified by the fact that the plaintiffs stipulated that the system should function under all conditions of service.

115 Turning to the second point, Mr Narayanan submitted that the effect of the evidence given by the plaintiff's witnesses was that they accepted that the problems encountered with the Original Paint could be overcome by proper application techniques. In fact, the evidence of both Mr Lo and Mr Ling to which Mr Narayanan referred me does not support this. Mr Ling did accept that eventually, with the New Paint the problem was overcome after a process of trial and error that included the use of dummy panels. However, he did not accept that the problems encountered with the Original Paint could be completely overcome.

116 This leads me to the third point. The reports and documents in question clearly and unequivocally do accept that the problem was inherent in the paint and that the strong side-view effect was caused by the use of coarse aluminium flakes only. Further, these reports state that the

Original Paint was beyond practical management to achieve an acceptable colour consistency and uniformity. Although the defendant's case was run on the basis that these reports were tailored and shaped by pressure from Mr Kwang, it was plain from Mr Ong's evidence that in the final analysis, he accepted the contents of these reports and documents. The following extracts from the evidence are illustrative of the point:

a) *In relation to the final report dated 9 August 2004 and the report dated 16 August 2004*

Q: Okay. I want to move on. … Let's talk about the … 9th August, … final report. You said the last two paragraphs were amended and inserted as proposed by Philip Kwang, right, Mr Ong?

A: Yah.

Q: And there were no objections from you, correct?

A: Yah.

Q: Okay. Did you agree with the conclusions drawn there?

A: We agree with the conclusions drawn there.

Q: You agree with the conclusions drawn there. Okay. And this was based on the understanding between yourself, PPG and Compact. Am I correct?

A: Yes.

Q: Okay.

Court: The conclusion is that, Mr Ong, you say you agree with are those that --- throughout that document, is it?

W: Yes.

Court: Page 79 to 80?

W: Yes, 79 to 80.

Court: Right. Including the additional paragraph?

With: Yah, after we adopt the, er, suggestion from Philip.

Q: Yes. Now, let's move on to the next document, page 128, 128 to 130. This is another report from PPG, 16th August 2004. You see the report?

A: Yah.

Q: Okay. And this one is also signed by you on behalf of Lee Thiam Soon?

A: Yes.

Q: Okay. You agree with the content of this report?

A: Agree.

Q: You agree. Okay. And this report was prepared purely on your own, is it, or on PPG's behalf without any proposal from --- or proposed changes from Compact? Am I correct?

A: Er, the changes have been done prior to that, like on the 9th, on the 9th report. So, er, basically, this will consolidate and we – we submitted to the architect.

Q: I see. This is a consolidation of the 9th report ---

A: Yah, 9th.

Q: --- plus further readings?

A: Yah. So—so—so it's a complete file.

Q: And data, technical data they put together?

A: Yah.

Q: Okay. And you agree with the content?

A: Yes.

Q: Okay.

Court: Again, that's for the whole report, is it?

W: Yes---

Por: Yes.

W: --- for the whole--- whole report. This is a consolidated report submitted to the architect.

Court: 128 to 130?

W: 128 to, er—to 1---142.

Court: Right, including the exhibits. Yes.

W: Yah.

b) In relation to a letter sent by PPG Malaysia on 9 September 2004 confirming that there was an inherent problem with the Original Paint:

Q: Right. Gary Altavilla basically refused to admit to or agree to this inherent problem issue raised by yourself and TS Lee. Am I correct?

A: Yes.

Q: Okay. So, when you received this letter on – with Gary's reservation, Gary Altavilla's reservation, you have a response at 658, right? Page 658 –

A: Yup.

Q: ---2AB658 and you said you understand the reservation. However, you said: [Reads] "... we are not at a good position to achieve good colour control. We have tried to spray the colour at Compact with an electro-static gun and Rotol with a bell gun, both cold not achieve good colour control."

Therefore you said:

…

"With the limited experience and resources, we have push ourselves into a corner that there is an 'inherent colour problem'."

And you said you think right now this is a commercial issue rather than a technical issue. And you still asked for that letter, correct?

A: Yes.

Q: Okay. But that letter didn't come from—the amended letter didn't come from Gary Altavilla, right?

A: Ya, it did not.

Q: Okay. Can you turn to page 661? Okay, this was another email from you to TS Lee, 9th September and you told TS Lee that you do not think you could send the letter from Gary Altavilla to Façade Master asking what should—what you should do next, correct?

A: Yah.

Q: Okay. Even you felt that it would not be acceptable---that letter---in view of the admissions made about inherent problem, Gary Altavilla's letter would not be acceptable.

A: Yah. It will be rejected.

Q: It will be rejected.

A: Yah.

Q: Okay. And therefore, right, eventually there was this letter at page 670 from Roger Young instead and this was dated 9th September 2004, right?

A: Yes.

Q: And he says he:

[Reads] "… reconfirms and validate the findings of … technical personnel with regards to inherent problem of …40019XLBC…"

Okay. Do you agree with the content of this letter?

A: Er---yes, agree, in particular to Compact line.

…

Q: I put it to you, Mr Ong, that the reason why Roger Young had to issue this letter at 2AB670 was because you knew that in view of the admission of inherent problems in the previous documents, right, Gary Altavilla's letter would be unacceptable. Do you agree?

A: I agree with that.

117 Therefore, Mr Narayanan's suggestion that Mr Ong's agreement was in any way short of an unqualified acceptance of the contents of these documents is incorrect and I simply do not accept the attempt to recharacterise the effect of the evidence that was given. Further, Mr Ong, in his evidence, accepted that while the problem could be diminished it could not be overcome. This clearly was material to the case.

118 I turn to the fourth point. Leaving aside the serious reservations I have expressed as to Mr Seah's expertise and knowledge of the relevant facts at [10]-[13] above, none of the aspects of his evidence that Mr Narayanan relied on displaces or in any way undermines the conclusion that the Original Paint was ultimately not capable of producing a finish that was satisfactorily consistent. Mr Seah's evidence as to the difficulties in applying such paint, assuming it is accepted, does not detract from the defendant's own acceptance that there was an inherent problem with the Original Paint which could not be wholly overcome even when its representatives surprised the line and set the relevant parameters. Moreover, to the extent Mr Seah did proffer a view as to the "probable and likely causes" of the problems encountered with the defendant's paint, this was essentially a repetition of the main complaints that the defendant had raised in respect of the deficiencies in application. There was no attempt by Mr Seah to explain how or why he concluded this was the root cause of the problem. There was also no evidence of his having applied his mind to the strong side-view effect caused by the use of only coarse flakes in the Original Paint, presumably because he was not aware of this fact: see [11]-[12] above. Mr Seah's evidence on the material issues was therefore not of assistance.

119 Turning to the last of the points I have noted above, there was some evidence that the Original Paint when used in the internal walls was found to be acceptable. This is perhaps not surprising since it was also evident that the tonal inconsistency was often not perceptible when the panels were examined at the perpendicular and from a certain distance. It was not disputed that the defendant knew the paint was to be used with the external cladding panels and it was here that the problem of tonal inconsistency became pronounced given the angle and distance from which the panels were being viewed. It is this that rendered the Original Paint unsatisfactory and the fact that it could be used in some areas did not render it otherwise.

120 Accordingly, I am satisfied that the defendant was in breach of the implied conditions as to satisfactory quality and as to fitness for purpose in supplying the Original Paint.

121 Before leaving this, there are two final points to be noted. First, Mr Narayanan submitted that paint is a semi-finished product and that the actual finished appearance of any metallic paint depends on a myriad of factors including those related to the application of the paint. He submitted therefore that the inquiry whether the paint supplied by the defendant did or did not meet the applicable terms of the contract should be directed at the wet unfinished paint rather than how it appeared when applied on the panels.

122 I would note first that paint is purchased in order to be applied. The performance of the paint

when applied is something that simply cannot be overlooked. If I had found that the Original Paint as supplied in its wet form was capable of being applied so as to produce an acceptable finish and therefore that the failure to achieve such a finish was due not to the paint itself but to deficiencies in the application then plainly the defendant would not be liable. However, I have found that this was not the case. Although there were some deficiencies on the application line, it was clear on the evidence before me that the problem of inconsistent tonality even if it could be reduced could not be eliminated. Accordingly, this does not avail the defendant.

123 Mr Narayanan submitted that a finding in favour of the plaintiff in the present case would set a dangerous and insidious precedent for all suppliers of products which require further acts of application. According to Mr Narayanan, the cost of doing business for such suppliers would increase exponentially if they were to be made liable for the deficiencies of the applicator. Were that the case, I would agree with him. However, with all respect, that submission rests on a misconception of the basis upon which I find for the plaintiff, which is that the paint supplied was not capable of being applied so as to achieve an acceptable finish.

124 Secondly, some reliance was placed upon the Supplier's Quality Assurance System ("SQA") System which the defendant applied on this project. According to the defendant, under this system, a sample from each batch of paint would be submitted to the plaintiff for approval prior to bulk delivery of that batch. Mr Narayanan submitted this was potentially relevant in two respects:

(a) His primary position was that this was not part of the contract but rather a system implemented by the defendant as a precaution because of the "sensitive" nature of the paint;

(b) If it were held that this was a contract for sale by sample, then, he submitted, the relevant sample was the SQA sample submitted for each batch.

125 Taking the second point first, I have held that this was not a contract for sale by sample. Accordingly, I do not need to consider this. As to the first point, it is irrelevant because, as I have noted at [88] above, the nature of the liability for breach of the conditions implied pursuant to the terms of the Act is strict. It does not matter whether the seller has been diligent or careful. If the goods supplied do not meet the required standard then the seller is liable.

The remedies available to the plaintiff

126 It follows from my finding that the Original Paint was not in accordance with the implied conditions of the contract that the plaintiff was entitled to reject the Original Paint and treat the contract as discharged. It was also open to the plaintiff to affirm the contract subject to the defendant remedying the breach in an acceptable manner. In either case, the plaintiff was also entitled to damages. In my judgment, the plaintiff was not required to make an election as to its remedies immediately upon delivery of the paint. It is relevant in this regard to have regard to the following facts:

(a) The problem would only become apparent after the paint had been applied and possibly only after the panels in question had been hung on the site.

(b) Even then, the cause of the problem would not immediately be known precisely because of the interplay between the material and the method of application.

(c) In the context of a construction project where the material was to be supplied under one contract, for use and installation under another, regard had to be had to a reasonable time being

allowed for the counterparty to the latter contract to be consulted.

127 It is noteworthy that both parties acted in accordance with each of these considerations. As I have found, it was the defendant that eventually suggested that a revised formulation be used and the architect's approval for the New Paint was then procured. However, it took some months before the plaintiff was able to achieve acceptable results in mass production using the New Paint. Mr Por submitted that the defendant remained liable for the delays and expenses incurred in attempts to achieve such results with the New Paint as falling within the losses caused by the initial breach of the contract in relation to the Original Paint.

128 In my judgment, it is impossible to consider the position in relation to the New Paint without regard to the following facts:

(a) By the time the proposal to reformulate the paint was made, the nature of the problems encountered with the Original Paint was known to the defendant.

(b) The proposal emanated from the defendant and was put forward as providing a solution to the problems that had been encountered.

129 There is no dispute that the New Paint also was a "sensitive" paint to handle. Mr Choong accepted as much and it was also accepted by him that the defendant was subsequently involved in trials with the New Paint and made recommendations as to line parameters and quality control procedures and expected the plaintiff to comply with these. In my judgment, this was inevitable given the background to the problems with the Original Paint. Mr Narayanan submitted that whatever assistance had been provided by the defendant in tests and trials were done out of goodwill rather than because they were obliged to. In my view, this ignores the reality of the situation in terms of the problems that had been encountered with the Original Paint which the New Paint was meant to overcome.

130 In fact, the defendant was being given a reasonable opportunity to establish that the New Paint was capable of being applied so as to produce an acceptable finish since this was the basis upon which the replacement had been agreed to. It was clear on the evidence that this is precisely what the defendant set out to do.

131 In my judgment, the consequences arising from this as well as from the problems encountered due to the defendant's failure to produce the New Paint in a single batch fall within the responsibility of the defendant and I accept Mr Por's submission that the damages that may eventually be shown to have arisen from this are recoverable. As I have noted above, it was the plaintiff that eventually managed to achieve consistency in the mass production of the New Paint. That transpired some time around the middle of November 2004. I have also found that there were occasions subsequent to that, in December 2004, when colour variation problems were found in the batches of paint supplied by the defendant. To the extent losses are shown to have been caused by this, those also are within the liability of the defendant.

132 I accordingly order that interlocutory judgment is to be entered in favour of the plaintiff with costs. The damages payable to the plaintiff are to be assessed before a registrar.

133 The defendant brought a counterclaim for the paint it supplied and invoiced. Invoices were issued between May 2004 and May 2005 for a total sum of $630,151,000 which the plaintiff did not honour.

134 It was not clear which, if any, of these invoices related to any of the Original Paint that was not rejected for any reason or to the New Paint that was supplied after mid-November 2004 and that was not rejected on account of any colour variation problems. To the extent any paint was so supplied and was not rejected as aforesaid, the defendant is entitled to be paid for this. However, the aggregate of such amounts is to be offset against the damages payable to the plaintiff after assessment. Save to this extent the counterclaim is dismissed.