

Table 20.12 Typical chocolate-flavoured coating recipes, suitable for coating/enrobing cakes and rolls.

| Ingredient | Milk chocolate flavoured coating recipe (%) | Dark chocolate flavoured coating recipe (%) | White chocolate flavoured coating recipe (%) |
|---|--|--|---|
| Sugar | 42 | 48 | 42 |
| De-mineralised whey powder ^a | 11 | | 6 |
| Skimmed milk powder | 5 | | 15 |
| De-fatted cocoa powder | 5 | 16 | |
| HPKO | 36.5 | 35.5 | 36.5 |
| Lecithin | 0.5 | 0.5 | 0.5 |
| Approximate total fat content | 36.7 | 37 | 36.5 |

^a Replace with skimmed milk powder, where regulations do not permit use of whey.

20.4.5 Speciality products

Nowadays there are so many possibilities with all the new ingredients that are available, together with all the knowledge on how to use these products that a book could be written on speciality products alone. Many samples are available from the technical or development departments of the suppliers.

For chocolate bars and chocolate confectionery, there are many fillings available, some made with chocolate as an ingredient together with added moisture (cream, condensed milk, glucose, sugar syrup etc.). These are “fresh” products with a short shelf life.

This section contains recipes for soft melt chocolate bar fillings that can be made using standard chocolate machinery, including the single stage grinding systems, for example Macintyre (Chapter 10), together with a traditional shell moulding plant.

A typical soft melt chocolate filling crème uses a soft coconut fat, or one of the many other appropriate vegetable fats to provide a “fast melt” in the mouth and a long shelf life. Three typical recipes are given in Table 20.13.

The light coloured recipe gives a “milky” base coating, which will readily mix with fat-based flavours and pastes, such as hazelnut, almond praline or coffee paste. Because it contains no moisture, rice crispies or other small extruded cereals can be added without the danger of the cereals becoming soft and soggy. If a darker filling is required, 10% of the skimmed milk powder can be replaced with de-fatted cocoa powder. This filling complements alcohol flavours such as rum and brandy and so on and is also suitable for strong flavours, for example cappuccino paste and bitter orange. If a higher quality filling is required, the cocoa powder can be replaced by cocoa mass and 5% of coconut fat with 5% of milk fat.

The white filling crème is ideal for fat based fruit flavours and colours, such as caramel, orange, lemon, fruit of the forest and so on. If a less rich filling crème

Table 20.13 Recipes for typical soft melt chocolate flavoured filling crèmes.

| Ingredient | Light coloured (milk) crème recipe (%) | White filling crème recipe (%) | Dark filling crème recipe (%) |
|------------------------|--|--------------------------------|-------------------------------|
| Sugar | 35 | 35 | 48 |
| Skimmed milk powder | 15 | 20 | |
| Milk fat | | 2 | |
| De-fatted cocoa powder | 5 | | 15 |
| Soft coconut fat | 44.5 | 42.5 | 36.5 |
| Lecithin | 0.5 | 0.5 | 0.5 |

If a softer filling is required, up to 5% of the soft coconut fat can be replaced with sunflower, rape or other good quality vegetable oil.

is required, some or all of the skimmed milk powder can be replaced with powdered pre-cooked rice or tapioca.

The dark filling crème is ideal both for a chocolate flavoured filling and for the addition of most fat-compatible alcohol flavours. If a really good quality chocolate filling is required, the de-fatted cocoa powder should be replaced with cocoa mass.

Cereal additions can be incorporated within all three types of filling crème, without the cereals becoming soft.

20.4.5.1 Speciality products

Under the heading of “speciality products” one must mention the many products sold with labels stating origin cocoa, plantation cocoa, organic, Fairtrade, kosher, functional and so on. All of these products have a consumer following and enrich the range of products available to the consumer.

For the production of these products, both normal and specialised equipment is used, as each manufacturer wants to produce something different and special. In many cases, by giving added care and attention to the ingredients and manufacturing process, it is possible to produce special chocolates that can demand higher price margins than standard products.

20.4.6 No added sugar chocolate

Traditional chocolate contains between 30 and 55% of added sugar (sucrose), which may be from cane or sugar beet. There is also a type of sugar which is called lactose that is naturally present in dairy ingredients such as milk and whey powders (Chapter 5). It is possible to make sugar-free chocolates, but these are either dark or, if they are milk or white, they are made with special lactose-free milk ingredients.

Some consumers avoid sugar (generally only sucrose) for reasons usually associated with life style or health. This may be due to concern about obesity or tooth decay, or that they are on a diet which restricts added sugars, perhaps