## Purpose

To ensure the quality of the new Raw material and all incoming raw material supplies.

## Scope

This procedure is applicable to REC Department of liquid master batch division responsible for raw material testing.

## Responsible

## Assistant Manager R&D

## Procedure

New arrival of the raw material is informed by our store team to REC through email or through Performa in which material name and its Lot# is being mentioned by our store team. Then raw material is being checked in its relevant grade and series. Every raw material has its own testing procedure. If a raw material for example pigment it will be checked in all the series in which it is being used. Not in all the grades but in all the series (MaxFlow, Microfix, DPM, and PolyTint Series).

Following are the procedures used for the evaluation of the raw material.

**3.1 Evaluation of New Supply:**

For the evaluation of the new arrival materials it will be checked as:

### Testing of pigments and additives:

1. Raw material will be checked in the relevant grade with the help of recipe provided by developer.
2. Material will be processed in 1 stage (mixer) for mixing grades and 2 stages (mixing and grinding). Following parameters will be checked as per product line:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Tolerance** | **Equipment** |
| Processing | As per standard | Mixer and bead mill |
| Shade evaluation (as per QC SOP) | dE<1.0 | Spectrophotometer D-2600 |
| Viscosity | As per standard range | Viscometer |
| Fineness of grind | <2.5 micron | Grinding gauge |
| pH measurement | 7-9 | pH meter |
| Storage | Visual Adjustment | Physical Test |

### Testing of Solvents, Carriers and Plasticizers:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Tolerance** | **Equipment** |
| Physical Appearance | Visual Adjustment | Physical Test |
| Specific gravity | ±0.05 | Density Cup |
| Viscosity | As per standard range | Viscometer |
| Smell | Visual Adjustment | Physical Test |

1. If all the parameters are within standard range then results are communicated to store and production department through email or call for issuance of material.
2. If any parameter does not meet the specs of standard range then the material is adjusted as per standard requirement. After adjustment results are shared through email or call with store and production department for issuance of material.
3. If it does not meet the specs of the product even after adjustment, Email of rejection is shared with store and purchase department.

**3.2 Evaluation of Alternate Material:**

For the evaluation of the new arrival materials it will be checked in shade and processing.

### Testing of pigments and additives:

1. Raw material will be checked in the relevant grade with the help of recipe.
2. Material will be processed in 1 stage (mixer) for mixing grades and 2 stages (mixing and grinding). Following parameters will be checked as per product line:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Tolerance** | **Equipment** |
| Processing | As per standard | Mixer and bead mill |
| Shade evaluation (drawdown) | dE<1.0 | Spectrophotometer D-2600 |
| Viscosity | ±5% at same temperature | Viscometer |
| Fineness of grind | <2.5 micron | Grinding gauge |
| pH measurement | 7-9 | pH meter |
| Storage | Visual Adjustment | Physical Test |

### Testing of Solvents, Carriers and Plasticizers:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Tolerance** | **Equipment** |
| Physical Appearance | Visual Adjustment | Visual Adjustment |
| Specific gravity | ±0.05 | Density Cup |
| Viscosity | ±5% at same temperature | Viscometer |
| Smell | Visual Adjustment | Visual Adjustment |

1. Material evaluation report is prepared after testing and checking all the parameters.
2. Report is shared with CRD (Central R&D Department) for further action if required.

**Amendment History**

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| --- | --- | --- |
| **Revision Number** | **Section** | **Amended Text** |
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