|  |
| --- |
| **STANDARD OPERATING PROCEDURE**  **SHADE MATCHING** |

|  |  |  |
| --- | --- | --- |
| **Author** | | |
| Name | Rameesha Fatima | **Signature** |
| Designation | Deputy ManagerR&D |
| Date | Dec 30,2019 |
| **Review** | | |
| Name | Ali Raza Gohar | **Signature** |
| Designation | QHSC team lead |
| Date | Dec 30,2019 |
| **Approval** | | |
| Name | Shahid Sultan Butt | **Signature** |
| Designation | General Manager |
| Date | Dec 30,2019 |

## Purpose

To ensure the quality of the product

## Scope

This procedure is applicable to all the staff of liquid master batch division responsible for the quality control.

## Responsible

## Deputy Manager R&D

## Procedure

**SHADE MATCHING IN DPM:**

Standard provided for shade matching in DPM could be either in three forms mentioned below;

**DRY PIGMNET**

1. By using dry pigment and dosing provided by customer, sheet on two roll mill is made.
2. Using spectrophotometer values are checked.
3. By using Pantone color guide idea about colors which are to be mixed is picked up.
4. Make a trial mix by using the available pigments of the possible component colors.

**PANTONE NUMBER**

1. By using Pantone color guide idea about colors which are to be mixed is picked up.
2. Using hit and trial attempts are made to match with standard.

**SHOE SOLE**

1. Sole is directly matched with pantone color guide and idea about colors is extracted.
2. Mark the closest shades and obtain an idea about the colors to be mixed.
3. Make a trial mix by using the available pigments of the possible component colors.

**Note**

* Repeat steps until a reasonable match is obtained.
* Note down the formulation of the matched mix and use it to make a sample for customer trail

**SHADE MATCHING IN LIQUID MEDIA:**

**PASTE AND POLYOL:**

1. Using standard paste provided by customer full shade and tint shade of paste is drawn on paper.
2. Using standard paste and Polyol provide by customer diluted shade is also drawn on paper.
3. Using spectrophotometer values are checked.
4. Using our data bank we try to match shade with our standards.
5. If shade is not present in library then by using Pantone color guide idea about colors which are to be mixed is picked up.
6. Make a trial mix by using the available pastes of the possible component colors.

**DRY PIGMENT:**

1. Using dry pigment provided by customer dispersion of that pigment is prepared in our base Plasticizers.
2. Then using this paste draw downs of full shade and tint (as per dosing provided by customer) are drawn on paper.
3. Above mentioned steps from c to f are repeated. Then using this paste draw downs of full shade and tint (as per dosing provided by customer) are drawn on paper.
4. Above mentioned steps from c to f are repeated.

**SHOE SOLE:**

1. In case of shoe sole provided as a standard using color data software guide line about pigment selection is obtained.
2. Make a trial mix by using the available pastes of the possible component colors suggested by color data.
3. After mixing draw down are drawn on paper.
4. Adjustments are made if shade varies from standard and this continues until exact matched shade is obtained.
5. After finalizing the recipe which is the closest one sheet on two roll mill is manufactured to compare it with standard.

**MaxFlow Series/ micro fix**

1. In case of MaxFlow series, shade is provided as standard from customer. First we draw down of full shade and tint (as per dosing provided by customer) are drawn on paper.
2. Compared those draw down cards with our standard cards. If shade varies from customer standard, adjustments are made until exact matched shade is obtained.
3. After finalizing the formulation, recipe is again prepared on bead mill and compared with standard if OK then approved if not then adjustments are made until shades are perfectly matched.

**PANTONE NUMBER:**

1. In case of pantone number provided by customer steps are all same as for shoe sole as a standard.

\*Repeat trial step until required shade is obtained.

\*Note down the formulation of the matched mix and use it to make a sample for customer trial.

## Associated Documents and Records

QC and shade matching sheet records.

.