

# How to Make Plastic and Composite PELT System Calibration Samples

<b>Minimum film builds:</b>	Clearcoat	1.25 mils (32 microns)
	Basecoat	0.50 mils (13 microns)
	Primer	0.60 mils (15 microns)
	Conductive Prime	0.60 mils (15microns)

We cannot measure Adhesion Promoter separately in most cases. Typical target thickness is below our current capabilities for measuring a bottom layer.

## Using Scrap Material for Calibration Samples

JSR can be provided with production scrap material containing all film coatings as long as the part has NOT been recoated and the coating film thicknesses are within the plant target specifications. You can use a PELT System to check for recoating. We suggest accumulating scrap material over a period of time in order to eventually build up scrap samples for all active colors.

Production scrap can be cut for shipment to JSR using a saw, or a minimum 4" diameter hand drill hole saw. 2 or 3 samples of each color from different areas of the production scrap panels should be sent to provide the JSR calibration lab with film build variation.

## Using Panels for Calibration Samples

If production scrap material is not available, 4"x12" plastic or composite panels (primed by the supplier when applicable) can be obtained from the supplier and then coated by the plant production process. The panels can be placed on a scrap carrier, or placed on the floor of each booth, coated manually, and then placed in a production carrier for production bake.

At least 2 panels of each color should be submitted in order to provide the JSR calibration laboratory with film build variation.

## Important Notes

- It is not necessary to mask plastic or composite samples.
- Total usable sample area should not be less than 24 square inches.
- Fill out the appropriate Process and Product Information Sheet for each color (see following pages).
- Backs of all panels should be labeled with plant name, date, and color information.
- If you have a PELT System, we strongly recommend using it to measure the calibration samples before sending them to assure adequate thickness of each layer.
- Panels not prepared to the above specifications may not be usable for calibration.

Send completed panels to:

**JSR Ultrasonics**  
**Attn: Calibration Lab**  
**3800 Monroe Ave.**  
**Pittsford, NY 14534 USA**

Process and Product Information Sheets can be sent with panels, or faxed to **+1 585 264 9642** or e-mailed to [cal.lab@jsrultrasonics](mailto:cal.lab@jsrultrasonics)

# PELT Gauge Calibration Sample Process and Product Information Sheet

The calibration samples will be used by JSR to determine film build calibrations for use with the PELT Gauge. In order to achieve the highest degree of calibration accuracy, the samples need to be run through the actual production process. Samples may be manual sprayed in *production booths* (using production material) and baked in the process (by placing panels in units). Lab sprayed samples should be avoided.

**One copy of this form should be provided for each film build.**

Customer: \_\_\_\_\_

Date: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Substrate: \_\_\_\_\_

## **E-Coat / Conductive Prime**

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Product Name: \_\_\_\_\_

Initials: \_\_\_\_\_

## **Primer / Adhesion Promoter** (Check one)

Waterborne  Solvent borne  Powder  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Prime color: \_\_\_\_\_

Initials: \_\_\_\_\_

## **Basecoat** (Check one)

Waterborne  Solvent borne  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Color code: \_\_\_\_\_

Initials: \_\_\_\_\_

Color name: \_\_\_\_\_

Solid  Metallic  Pearl  Don't Know

## **Clearcoat** (Check One)

Waterborne  Solvent borne  Powder  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Product Name: \_\_\_\_\_

Initials: \_\_\_\_\_

**I certify that the above sample is the closest achievable representation of the actual production process.**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

# PELT Gauge Calibration Sample Process and Product Information Sheet

The calibration samples will be used by JSR to determine film build calibrations for use with the PELT Gauge. In order to achieve the highest degree of calibration accuracy, the samples need to be run through the actual production process. Samples may be manual sprayed in *production booths* (using production material) and baked in the process (by placing panels in units). Lab sprayed samples should be avoided.

**One copy of this form should be provided for each film build.**

Customer: \_\_\_\_\_

Date: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Substrate: \_\_\_\_\_

## **E-Coat / Conductive Prime**

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Product Name: \_\_\_\_\_

Initials: \_\_\_\_\_

## **Primer 1** (Check one)

Waterborne  Solvent borne  Powder  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Prime color: \_\_\_\_\_

Initials: \_\_\_\_\_

## **Primer 2** (Check one)

Waterborne  Solvent borne  Powder  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Prime color: \_\_\_\_\_

Initials: \_\_\_\_\_

## **Basecoat** (Check one)

Waterborne  Solvent borne  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Color code: \_\_\_\_\_

Initials: \_\_\_\_\_

Color name: \_\_\_\_\_

Solid  Metallic  Pearl  Don't Know

## **Clearcoat** (Check one)

Waterborne  Solvent borne  Powder  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Product Name: \_\_\_\_\_

Initials: \_\_\_\_\_

**I certify that the above sample is the closest achievable representation of the actual production process.**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

# PELT Gauge Calibration Sample Process and Product Information Sheet

The calibration samples will be used by JSR to determine film build calibrations for use with the PELT Gauge. In order to achieve the highest degree of calibration accuracy, the samples need to be run through the actual production process. Samples may be manual sprayed in *production booths* (using production material) and baked in the process (by placing panels in units). Lab sprayed samples should be avoided.

**One copy of this form should be provided for each film build.**

Customer: \_\_\_\_\_

Date: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Substrate: \_\_\_\_\_

## **E-Coat / Conductive Prime**

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Product Name: \_\_\_\_\_

Initials: \_\_\_\_\_

## **Primer / Adhesion Promoter** (Check one)

Waterborne  Solvent borne  Powder  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Prime color: \_\_\_\_\_

Initials: \_\_\_\_\_

## **Ground-Coat** (Check one)

Waterborne  Solvent borne  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

## **Mid-Coat** (Check one)

Waterborne  Solvent borne  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Color code: \_\_\_\_\_

Initials: \_\_\_\_\_

Color name: \_\_\_\_\_

Solid  Metallic  Pearl  Don't Know

## **Clearcoat** (Check one)

Waterborne  Solvent borne  Powder  Other

Target Thickness: \_\_\_\_\_

Vendor code: \_\_\_\_\_

Vendor: \_\_\_\_\_

Product Name: \_\_\_\_\_

Initials: \_\_\_\_\_

**I certify that the above sample is the closest achievable representation of the actual production process.**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date