Decoral System Srl

Technical Data Sheet

PU PHOTOLUMINESCENT POWDER Conf Usa Cod. LIGHT-001U

Powder Coatings:	TGIC FREE POLYURETHANE
Use:	Indoor
Suggested for:	Base coat for heat transfer process
Application	Corona Charging
Curing Cycle:	25' X 195°C (Metal Temperature)
	20' X 200°C (Metal Temperature)
	15' X 205°C (Metal Temperature)

Chemical and Mechanical Properties

1 - Packing	20 Kg. Boxes with PE-bag, palletized and shrink-wrapped		
2- Shelf-life	In a dry place with a temperature lower than 35 °C		
	for 24 months		
3 - Specific weight	1.20 ± 0.09 g/cm3		
4 – Yield m2/Kg. considering	13 m^2/Kg		
60 microns film thickness			
5 - Appearance	Semimatt		
	RIF Standard	**Miniumum Tollerance Limit**	**Result**
6 - Gloss (Gardner 60°)	ISO 2813	15 ± 5 gloss	OK
7 - Buchholz hardness	ISO 2815	minimum 80	OK
8 - Adhesion	ISO 2409	No loss of Adhesion	OK
9 - Thickness (Minim. thickness)	ISO 2360	60 microns	OK
10 - Direct Impact Test *	ASTM D2794	2,5 N/m	No Coating detaching
11 - Reverse Impact Test*	ASTM D2794	2,5 N/m	No Coating detaching
12 - Bending *	ISO 1519	5 mm diameter	No Coating detaching

* Tests carried out on 1 mm. thickness alloy AA5005 H24 chromate aluminium sheets and 60 microns coating layer .

This technical information is reliable to the best of our and our customers' experience but non warranty or guarantee is implied.
Users will assume responsibility for the application of the product testing its characteristics on their own equipment and carriers.

Product application:

Photo luminescent powder coating is a transparent powder with photo luminescent pigments, which can absorb only UV rays and not visible radiations.

In order to let the stimulated coating emit the maximum of radiation, the photo luminescent powder should be applied as following:

1 - A first coating layer in white Polyester (to improve the reflection); it is possible also to use a mildly pigmented powder, with the same colour of the photo luminescent light (yellow / yellow- green / ocean blue);

2 - A second coating layer in photo using luminescent coating powder.

How to use it:

Step 1:

Coating Layer Charge

As above explained, to obtain the phosphorescence effect, it is absolutely necessary to charge the painted surface up using light energy sources.

Maximum of charge could be obtained by one of the following systems:

A. 5-10 minutes by artificial light (150-200 Watt) full of UV rays (halogen lamps, with lower UV rays, require more time);
B. 5-6 minutes by sunlight exposition;
C. Immediately, by Black light (or Wood light) (emissions mainly consist of UV-A rays).

Step 2:
Radiation

After the end of Step 1), the paint coated will immediately start radiating visible light. The darker the environment, the more noticeable the effect will be.
(Photoluminescence intensity indeed is lower than other artificial light radiation).

Step 3:
Radiation Durability:

During the first hour, light radiation loss is 80-90%, keeping stable for the following 9-10 hours.

Integration with the heat-transfer process:

ONLY FOR INDOOR USE

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