

Primer EPOXY

SPECIFIC CHARACTERISTICS

CODE	AL602JR	
DESCRIPTION	*PM GREY A701 SEMI-MATT 3120180800	
SPECIFIC WEIGHT (P)	1,61 ± 0,05 Kg/dm ³	
THEORETICAL YIELD (R)	10,35 m ² /Kg	- Thickness : 60 microns -
CURING CYCLE	180°C x 5 ÷ 8 ' (max) as Primer 180°C x 20' as unique layer	
	<i>N.B. Time and temperature on the piece.</i>	
APPLICATION	Tribo/Corona	
	<i>(or with spray guns equipped with an H.V. generator.).</i>	
SURFACE APPEARANCE	Smooth	
Gloss ISO 2813	15-25	

GENERAL DATA

COMPOSITION

Thermosetting powders obtained processing together solid epoxy resins, selected hardeners, pigments, fillers and additives, suitable for giving films with very high corrosion resistance for ferrous substrates.

PRETREATMENT

Substrates must be free from grease, slag and rust. Depending on the degree of corrosion resistance required, it is advisable to prepare the surface by sanding and/or degreasing and then by performing a phosphate pre-treatment (zinc phosphates are better to get the best performance).

APPLICATION FIELDS

Thanks to its "filling" power and its high smoothness, this primer it's highly recommended for aluminium alloy wheels' coating. It's is also suitable for all iron made items in general: fire extinguishers, tanks, gas tanks, fences, garden fixtures and machines, industrial air conditioning devices, heavy carpentry, trailers, farming machines, pipes, shelves, and anytime a strong chemical resistance is required.

SECOND LAYER APPLICATION

This powder if selectively cured as described above (ref. Curing Cycle), can be used either as unique layer or first layer and this last case is suitable to receive a topcoat either by using powder or liquid finish.

The choice of the top coat must be always previously checked and approved by testing the inter layers adhesion.

STORAGE LIFE

When stored in its original sealed package and in dry conditions at temperature ≤ 30°C, the product shelf life is at least 6 months from the shipping date. After expiry date, check the product before use.

PARTICLE SIZE

The average size of powder particles, detected by using the LASER method, ranges usually between 30 and 40 microns. Other particular average size may be prepared on demand.

The value reported on testing data sheet refers to the percentage of powder whose particles size is higher than 71 microns.

THICKNESS (S)

Expressed in microns. Optimal between 60 and 100 microns.

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CONSUMPTION (C)

Expressed in Kg/m² of coated surface. $C=(S \times P)/1000$ S is the average thickness of the film expressed in microns and P is the specific weight of the powder expressed in Kg/dm³.

YIELD (R)

$R=1000/(S \times P)$ Expressed in m² of surface coated with one Kg of powder.

GENERAL FILM DATA

MECHANICAL PROPERTIES OF EPOXY PRIMER

Film thickness	55 ± 5	microns	ISO 2360
Cross hatch adhesion	GT0		ISO 2409
Pencil hardness	H - 2H		ASTM D3363-74
Impact test	≥ 1	Nm	ASTM D2794
Erichsen test	≥ 5	Mm	ISO 1520
Mandrel bend test	5	Mm	ISO 1519

MECHANICAL PROPERTIES OF THE EPOXY PRIMER TOP-COATED WITH A POLYESTER POWDER (SERIES REALCOAT™ PE and PG)

Curing cycle Primer	180°C x 5÷8 min.		
Curing cycle Polyester	180°C x 20' (Series REALCOAT™ PE and PG)		
Film thickness Primer	55 ± 5	microns	ISO 2360
Film thickness Polyester	60 ± 5	microns	ISO 2360
Dry cross-hatch adhesion	GT0		ISO 2409
Pencil hardness	H - 2H		ASTM D3363-74
Impact test	≥ 2,5	Nm	ECCA T5
Erichsen slow embossing	≥ 5	Mm	ISO 1520
Mandrel bend test	5	Mm	ISO 1519

In order to improve the adhesion of a possible final top coat on the primer, a partial curing of the first layer is recommended (i.e. : 180°C x 5÷8') or just its fusion provided that this process allows anyway the formation of a continuous film.

The complete curing of the primer will be carried out later contemporarily with the curing of the top coat product.

CORROSION RESISTANCE

Epoxy primer top-coated with a polyester series REALCOAT™ PE and PG powders applied on steel substrate pre-treated with zinc phosphate Bonder 26S/60/0C or heavy iron phosphate WH/GN D 60/02.

Neutral salt spray test	1000 h	≤ 1 mm	ASTM B117
Water immersion	1000 h	No change	ASTM D870

Note: All above stated values have been determined on 0,6 mm thick Unichim steel panels coated with a layer of approx. 60 microns of powder after degreased with chlorinated solvent, except for the corrosion tests made on Bonder 26S/60/0C panels or heavy iron phosphate WH/GN D 60/02. The tested formulation is smooth and glossy. The abv/m data are correct and they are the result of our tests and experience. They don't represent a formal or implied guarantee, as the powder application is made by the user in conditions we cannot control and in accordance with parameters unknown to us. The user has to make sure the powder is suitable to his purposes; the responsibility of the final result is anyhow of the user. The information contained in this sheet are susceptible of modifications without forewarning, as our goal is to have a continuous improvement of our products. For particular specifications please contact our technical customers service.