

POLITHERM 24 W-ZN R LI GRIS RICO ZINC 15204 SM



Producto: 18876158

Description: Epoxy powder coating corrosion resistant for metallic parts

Uses: Coating for metallic parts when is not possible pretreatment by conventional phosphatization and good anticorrosive protection is necessary.
Suitable for single application as one coat finish or as basecoat for epoxy, hybrid or polyester topcoat.
Because of the high content of zinc, this coating is not recommended to cover surfaces exposed to highly acid or alkaline environments.

Application process: It's strongly recommended the careful reading of the recommendations below to obtain the ideal performance of the product.

Surface: Carbon steel.
Sharp edges substantially reduce the applied layer, so a good finish of the pieces is recommended.

Pretreatment: For the best performance, the surface must be degreased with solvent and then shot blasted (Sa 2½). The coating can also be applied on surfaces that cannot be shot blasted. In this case it's necessary to guarantee a full multi-stage phosphatization.

Application: By conventional electrostatic gun. The product is not suitable for application by tribo-electric system. It should be applied in layers ranging from 50 to 70µm, however different layers can be necessary to guarantee the surface profile ranging from 1/3 to 1/4 of the of the rich zinc coating thickness. During the use it is recommended to use a maximum of 20% recovered powder and to clean the nozzles every 30 minutes.

Cure The cure cycle must be carried through convection oven with uniform heat distribution. Infrared heaters can be also used as part of the cure equipment.

1. Single layer system: Note: All temperatures indicated in the stoving schedules refer to object temperature
When the coating is applied as one coat finish, the cure schedule must be 10 minutes at 200°C to ensure complete cure.

2. Double layer system (primer + topcoat): To obtain the appropriate adhesion among layers it's recommended the half-cure of the rich zinc (5 minutes at 200°C). The half-cure can be made in different stoving schedules but never below 130°C or above 220°C. Divergent values compromise the adhesion of the topcoat. The use of the rich zinc is not recommended in pieces composed by parts of different thickness. Necessary time/temperature to get the half-cure of the parts with larger metallic mass leads to the overbaking of the finest parts causing adhesion problems. The handling of the pieces should be avoided. If this procedure is necessary should be done with gloves free of released fibers. The application of the finish must be done before 12 hours after the half-cure of the primer. The ideal period of application is within 4 hours after the application of the primer.
For applications after 4 hours the pieces must be heated for 10 minutes at 120 - 150°C, followed by cooling. To obtain the best system performance the overcoat should be cured according to the specifications of its own technical bulletin.

Repairs in the coating film: Any damage on the surface of the system primer + topcoat must be corrected in the shortest time. To repair, the damaged area must be degreased with solvent and sandpapered until the substrate and cleaned again.
After these procedure a two-component liquid rich zinc epoxy primer should be applied followed by the liquid finish with similar performance of the powder topcoat.

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Characteristics of the product:

Resins system	Epoxy
Appearance	Grey powder (not available in other colors)
Specific weight	3,5 ± 0,10 g/cm ³
Shelf life	6 months (máx. 86°F)
Additional information	Free of heavy metals and other substances according to Directive 2015/863 UE de 31/03/2015 (RoHS)

Characteristics of the applied product:

The tests were carried out in the following conditions:
 Thickness: 2 - 2,8 mils
 Cure conditions: 10 minutes to 392°C
 Data of mechanical tests report values for powder applied over common degreased steel panels. Chemical resistance tests were carried out using panels of shot blasted steel (Sa 2½) covered by the complete system (primer + polyester topcoat). In both cases the application and cure conditions of each coating were observed.

Mechanical tests:

Test	Method	Specification
Adhesion	ASTM D 3359	GRO
Aspect	-	Semi-matte showing small granular aspect
Erichsen cupping	DIN 53 156	Minimum 4,0 mm
Impact	ASTM D 2794	Minimum 40 Kg.cm
Flexibility (conical)	ASTM D 1737	Maximum 5 mm

Chemical resistance:

Test	Method	Specification
Salt spray	ASTM B 117-03	Minimum 2,000 h
Humidity	ASTM D 1735	Minimum 1,000 h

Note:

Tests carried out at laboratory showed good resistance results for salt spray up to 3000 hours. Some spots of red corrosion were observed in the scribe but without propagation. Actual product performance will depend upon the care taken in the application of the system and the circumstances where the product is used. Damaged areas exposing the substrate can result in red corrosion but it will not extend to the other areas of the piece.

Handling precaution:

See orientations in the Material Safety Data Sheet

Note:

- Its not intended that all information contained in this bulletin are complete, and the user does so at his own risk in case of use the product in different purpose that specifically recommended in this bulletin, without first obtaining written confirmation from WEG as to the suitability of the product for the intended purpose
- While we endeavor to ensure that all advice we give about the product is correct we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product.
- Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product.
- The information contained in this bulletin is liable to modification from time to time in the light of experience and our policy of continuous product development.

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