CHUGOKU PAINTS B.V.

CMP EPIZINC 650

Product description:

This is a two component polyamide cured zinc rich epoxy coating.
It conforms to the compositional requirements of SSPC paint 20, level 2 and ISO 12944-5.
It provides good corrosion protection as part of a complete coating system.
Suitable for carbon steel. This product complies with ASTM D520 type III zinc dust.

Typical use:

Protective:
Suitable for structural steel and piping exposed in corrosivity categories up to C5 vh. Recommended for offshore environments, refineries, power plants, bridges, buildings, mining equipment and general structural steel.
Specially designed as a primer for coating systems where extended durability is required.

Certificates / approvals:

Certificates and approvals may be available on request.
ISO 12944-6 --> C5 h-vh

Physical Data: (Mixed product)

Number of components:	Two Pack Product
Colours:	Grey
Gloss:	Low-gloss
Volume solids %:	67 ±2
Theoretical spreading rate:	8,4m²/l
Flash point:	26°C (Mix)
Specific gravity:	2.40 kg/l
Dry to touch:	30 min at 20 °C
Hard dry:	4 hours at 20 °C
VOC (Theoretical):	286 g/l

Recommended substrate conditions:

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2019.

Abrasive Blast Cleaning
Abrasive blast clean to Sa2½ (ISO 8501-1:2007). If oxidation has occurred between blasting and application of CMP EPIZINC 650, the surface should be reblasted to the specified visual standard.
Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.
A surface profile of Rz5 40-75 microns is recommended.

Shop Primed Steelwork
CMP EPIZINC 650 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers.
If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary.
Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.
Weld seams and damaged areas should be cleaned to a minimum St3 (ISO 8501-1:2007) Optimum performance will be achieved with blasting to Sa2½ (ISO 8501-1:2007)

Mixing
Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.
(1) Agitate Base (Part A) with a power agitator.
(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Application conditions
Apply only on a dry and clean surface with a temperature above the dew point to avoid condensation. Use only where application and curing can proceed at temperatures above: 10°C. The temperature of the paint itself should be: 15-25°C. In confined spaces provide adequate ventilation during application and drying. It is important that the surface is completely clean to ensure the adhesion. Any oil, grease, etc. to be removed by suitable detergent.

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Application data:

Version, mixed products	CMP EPIZINC 650
Recommended Thinner:	CMP EP THINNER
Mixing ratio:	Base: Curing agent: 256EE 256EE0000 80 : 20 (by volume) 92 : 8 (by weight)
Application method:	Airless spray, brush, roller.
Recommended thinner volume:	0 - 10% (by volume)
Nozzle orifice:	Graco 419 - 621
Nozzle pressure:	18.0 - 25.0 MPa
Indicated film thickness, wet:	Min: 120µm
Indicated film thickness, dry:	Min: 80µm
Min.Temperature:	-5ºC to 40ºC, preferably 5ºC to 40 °C
Pot life:	12 hours @ 20 °C
Humidity:	85% R.H.
Overcoat interval, min:	See ADDITIONAL APPLICATION DATA
Overcoat interval, max:	See ADDITIONAL APPLICATION DATA

Add the Curing agent to the base whilst mixing. Stir well before use.

Notes: * In case of brush or roller application more layers may be required to achieve the specified film thickness.
When painting edges and welds, stripe coating is recommended.

Additional application data:

Overcoating intervals related to later conditions of exposure: If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion. Before overcoating after exposure in contaminated environment, clean the surface thoroughly with high pressure fresh water hosing and allow drying. A completely clean surface is mandatory to ensure intercoat adhesion, especially at long overcoating intervals. Any dirt, oil, grease, and other foreign matter must be removed with suitable detergent followed by (high pressure) fresh water cleaning. Salts to be removed by fresh water hosing. Any degraded surface layer, as a result of a long exposure period, must be removed. Water jetting may be relevant to remove any degraded surface layer and may also replace the above mentioned cleaning methods when properly executed. Consult Chugoku Paints B.V. for specific advice if in doubt. To check whether the quality of the surface cleaning is adequate, a test patch may be relevant. However, this test patch should not be a final proof of the durability of the coating systems.
In order to ensure good anti-corrosive performance, it is important to achieve a minimum dry film thickness of CMP EPIZINC 650 of 50 microns. To achieve a uniform, coalesced, closed film at this dry film thickness, it will be necessary to thin CMP EPIZINC 650 10% by volume with CMP EP THINNER. The film thickness of CMP EPIZINC 650 applied must be compatible with the blast profile achieved during surface preparation. Low film thickness should not be applied over coarse blast profiles. Care should be exercised to avoid the application of dry film thicknesses in excess of 150 microns. Care should be exercised to avoid over-application, which may result in cohesive film failure with subsequent high builds, and to avoid dry spray which can lead to pin holing of subsequent coats. Over application will also result in slower curing and extended handling and overcoating times. Over application of CMP EPIZINC 650 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Curing time and over-coating data:

Temp.	Surface dry (at 60µ DFT)	Hard dry (at 60µ DFT)	Fully cured (at 60µ DFT)	Over-coating Interval Min.	Over-coating Interval Max.	Pot life
-5 °C	-	-	-	-	-	-
0 °C	-	-	-	-	-	-
5 °C	-	-	-	-	-	-
10 °C	**40 min**	**6 hours**	**7 days**	**8 hours**	**Extended**	**24 hours**
20 °C	**30 min**	**4 hours**	**7 days**	**4 hours**	**Extended**	**12 hours**
30 °C	**30 min**	**2 hours**	**7 days**	**2 hours**	**Extended**	**8 hours**

When CMP EPIZINC 650 is allowed to weather before top coating ensure all zinc salts are removed prior to paint application and only topcoat with recommended materials.
Surface temperature must always be a minimum of 3°C above dew point.

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Spreading rates:

Dry Film Thickness	Theoretical Spreading rate
60 µm	11,2 m²/l
80 µm	8,4 m²/l

Storage:

Min. 12 months at 20°C. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Color variation:

When applicable, products may have slight color variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering.
Color and gloss retention on topcoats/finish coats may vary depending on type of color, exposure environment such as temperature, UV intensity etc., and application quality. Contact your local Chugoku Paints B.V. office for further information.

Safety information: If Health, Safety and Environmental information is required a Health and Safety Data Sheet can be obtained from Chugoku Paints B.V.

Personal Protection advice and additional information can be obtained from the product Health and Safety Data Sheet which is available on request. The minimum safety precautions in dealing with this paint are:

a. Observe the precautionary notices displayed on the container.
b. Provide adequate ventilation.
c. Avoid skin contact and inhalation of spray mist and vapours.
d. If the product comes into contact with the skin, wash thoroughly with luke warm water and soap or suitable cleaner. If the eyes are contaminated, irrigate with water and seek medical advice immediately.
e. Since the product contains flammable materials, keep away from sparks and open flames. No smoking should be permitted in the area.

Definitions:

Tolerances:	The numerical information quoted in this Technical Data Sheet is subject to normal manufacturing tolerances.
Spreading Rate:	The spreading rate can vary depending on application conditions, the geometrical complexity of the structure, the weather conditions, etc.
Volume Solids:	The volume solids figure given in this Technical Data Sheet is the percentage of dry film obtained from a given wet film thickness under specified application rate and conditions measured by the Chugoku Standard Method corresponding to ASTM method D2697 if not otherwise indicated.
Overcoating Intervals:	The intervals given assume preparation consistent with good painting
Hard dry:	The time taken until the product can be walked on without damaging it. Time taken until full mechanical strength is obtained is longer.
V.O.C.:	Theoretical quantity of volatile organic compounds in g/l.