

# INORGANIC ZINC RICH ETHYL SILICATE PRIMER

( Certified by RIPI & METRA. , 20 years well feedback and satisfaction, Based on IPS -M-TP 210 )

## Parsizinc 7411

### DESCRIPTION

\* Two component inorganic zinc rich ethyl silicate using high performance ethyl silicate resin and super fine zinc dust .

### USES

\* Versatile high performance primer for heavy duty coating systems, due to making strong chemical bonds with steel and zinc.

\* Single coat .

\* Shop primer .

\* Excellent primer for tank lining.

\* The primer meets SSPC Paint 20 , Type II ( Level 1) and equivalent performance IPS -M-TP 210 in table 7 of IPS-M-TP100.

### FEATURES

\* Excellent atmospheric corrosion resistance in severe and critical environments .

\* Excellent solvent resistance .

\* Excellent performance as a primer for lining systems .

\* Excellent welding compatibility .

\* High thickness might lead to cracking .

\* Excellent heat resistance up to 420° C , if it is used as a single coat .

\* If heat resistant paint is used with zinc rich ethyl silicate in a paint system , maximum continuous heat resistance is near to 400 °C , but temperature surging to 450 °C is possible .

\* Contain approximate 86% zinc in dry film .

### TECHNICAL DATA

<b>Finish</b>	Flat
<b>Colour</b>	Grey
<b>Specific gravity ( at 20 °C , Mix )</b>	2.75 ± 0.05 ( gr/cc )
<b>Volume solid</b>	62 ± 2 %
<b>Recommended DFT</b>	60 - 80 ( mic ) <sup>1</sup>
<b>Flash point</b>	30 °C
<b>Shelf life ( at 20 °C )</b>	4 months <sup>2</sup>
<b>Package</b>	20 Liters, others on request

<sup>1</sup>Avoid high thickness . See note B

<sup>2</sup>Shelf life gets shorter in hot weather

### SURFACE PREPARATION

\* Remove oil, grease, moisture and other contaminations.

\* Blast the surface more than SA 2½ up to SA 3 with a suitable roughness and minimum interval for applying .

### RECOMMENDED PAINT SYSTEMS

<b>A : Paints System up to 150 ° C</b>		
P : 7411	60 - 80	micron
I1: 4252 (as tie-coat ) , or mist coat of intermediate	20 - 30	micron
I2 : 4211 (all series) , 4204 (all series) 4205ZP, 4212 (all series), 3202	100 -200	micron
T : 6591 (all series) , 4392, 3391	50 - 100	micron
<b>B : Paint System at 250 to 450 ° C</b>		
P : 7411	60 - 80	micron
T1 : 7093B, 7073, 7099B ( up to 250 ° C )	20-25	micron
T1 : 7094 ( up to 450 ° C )	20-25	micron

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### APPLICATION DATA

Method	Air / Airless spray		
Thinner / Cleaner	T -741		
Mixing ratio by weight	Base : Zinc	100 : 32	<b>Zinc : 25 kg + Resin: 8 kg</b>
Pot life ( at 20 °C )	4 hrs		

- Different thinner with different suffix maybe offered in hot and cold seasons .

#### Theoretical Coverage :

Dry film thickness (mic)	60	70	80
Coverage ( m <sup>2</sup> / lit )	10.33	8.86	7.75
Coverage ( m <sup>2</sup> / kg )	3.75	3.22	2.82

Touch dry ( 60 mic , 25 °C ) 10 min

Fully cured ( 60 mic , 25 °C , 65-75% RH ) Appr. 3 days

- Zinc rich ethyl silicate needs enough moisture for fully curing .
- At lower humidity ,higher dry film thickness, lower temperature and poor ventilation drying time and fully cured will be longer.
- Application in closed area results in long touch & tack drying time and therefore longer minimum intervals. So sufficient air draft is required for maintaining normal application condition.

#### Recoating interval ( at 65-75% R.H ) :

Surface temperature	10°C	25°C	35°C
Min. Interval (days)	5	3	2
Max. Interval ( days )	Extended	Extended	Extended

- Extended : **see note E**

### RECOATING PROCEDURE

- The indicated minimum interval time has been considered at 25°C and 65-75% RH so, it is better to have a solvent rubbing test with MEK to ensure a fully cured stage before recoating.  
**See Note J**
- Curing may be promoted at low humidity by hosing down the surface with water at least 4 hours after application and keeping the surface constantly wet until curing is completed. Pay enough attention that water is sprayed over painted surface and do not drench it by pressure water .
- Non-weathered zinc silicate coatings are naturally porous, so, because of trapping air and gas, popping may be occurred in the subsequent coat. One way to reduce the risk of popping is to apply 25- 40 microns mist coat which is diluted subsequent coat with 30-50% thinner, let the air escape and then apply the full coat. The second way of reducing popping is using a suitable tie coat .
- Zinc rich primers can form zinc salts on the surface, if they are weathered for long periods before over coating. In this case before recoating or top coating all zinc salts and any contamination should be removed by high pressure fresh water washing, sand paper, sweep blasting or other mechanical cleanings. For a long recoating interval, application of a suitable thin mid coat like 4212 or 4211 directly after minimum interval is recommended.
- Before any recoating or top coating, if weathering has been occurred , all zinc salts should be removed by pressure fresh water washing.

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### APPLICATION INSTRUCTIONS

- \* Check all equipments are dust, oil and moisture free. If needed , flush with cleaner thinner.
- \* Take out the plastic bag of zinc powder from 20 liters container , shake the base solution well and pour it into the empty container .
- \* Add the zinc powder slowly to base solution when a power mixer is working .
- \* Continue mixing up to get a homogenous mixture.
- \* Basically there is no need to use the thinner unless when the surface temperature is high, in this case , consult Parsifam for suitable thinner .
- \* Stirring the material in low speed during painting is necessary . **See note H**

**The given data could be adjusted by applicator in practical situation by his own actual trial.**

	Pressure (atm)	Orifice	Tip Range	Thinner (vol%)
Air spray	3 - 4	1.3 - 3 mm		0 - 10
Air less	6 - 7	19 - 23 mic	219 -323	0 - 5
Brush / Roller	Suitable for small areas only			

### SURFACE TEMPERATURE

Must be at least 3°C above dew point, apply the coats when surface temperature is from 10°C to 40°C. Please contact Parsifam if the substrate temperature is lower or higher.

### RELATIVE HUMIDITY

Relative humidity shall be more than 65% . Below 65% RH, the minimum recoating interval time will be taken longer.

### SAFETY

- ▲ Due to high flammability , keep away the paints from heat , sparks and flames.
- ▲ Avoid contact the paints with eyes and skin.
- ▲ Use mask and gloves and provide suitable ventilation for the reasons of health and safety.

**REMARKS :** The information submitted in this data sheet is based on our best current knowledge and experience. The ultimate performance of this coating is quite related to performance of surface preparation, application procedure and conditions that limits our liability to the figures of submitted technical and application data .