

# Metalox<sup>®</sup> - P2

Solvent based polyurethane primer

## PRODUCT DESCRIPTION

A two component, low build, 50% solids polyurethane, designed for steel surfaces in atmospheric exposure. Metalox - P2 has outstanding water and anti-corrosion resistance. Metalox - P2 will cure at low temperature

## INTENDED USES

- Priming of structural steel
- Priming of steel mining equipment
- Priming of galvanising steel
- Priming of steel where the blast profile is inadequate for the direct application of Liquimix polyurea and hybrid membranes

## FEATURES

- Low build with up to 125 Microns DFT possible in a single coat
- Fast cure at ambient temperature
- Full cure down to 5°C
- Convenient 4:1 by volume mix ratio
- Direct to steel coating

## PRODUCT DATA

<b>Volume Solids</b>	50%
<b>Theoretical Coverage</b>	10 Square meters / Litre at 50 Microns DFT
<b>Finish</b>	Pigmented
<b>Colour</b>	Grey
<b>Gloss</b>	Semi-Gloss
<b>Mixing Ratio</b>	4:1 by volume
<b>Pot Life</b>	2.5 Hrs @ 25°C
<b>Typical Thickness</b>	25 to 38 Microns DFT (50 to 75 Microns WFT)
<b>Cleaner</b>	LM1 Thinner
<b>Flash Point</b>	>26°C
<b>VOC</b>	415 Grams/Litre
<b>Specific Gravity</b>	1.30

## CURE & RECOAT

### Metalox P2 Standard Curative

Substrate Temp	Tacked	Hard Dry Note 1	Minimum Recoat Time	Maximum Self Recoat Time Note 2
5°C	8 Hrs	24 Hrs	8 Hrs	2 Days
10°C	6 Hrs	18 Hrs	6 Hrs	2 Days
15°C	4 Hrs	12 Hrs	4 Hrs	2 Days
25°C	2 Hrs	6 Hrs	2 Hrs	2 Days
40°C	1 Hrs	3 Hrs	1 Hrs	1 Day

Note 1: Full cure 7-14 days. Pull-off adhesion testing is best conducted after at least 3 Days cure

Note 2: Where the Metalox P2 is exposed to direct sun and UV, the maximum recoat time will be considerably reduced. Contact Liquimix for advice

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## Metalox P2 Fast Cure Curative

Substrate Temp	Tacked	Hard Dry Note 1	Minimum Recoat Time	Maximum Self Recoat Time Note 2
5°C	4 Hrs	8 Hrs	4 Hrs	1 Day
10°C	3 Hrs	6 Hrs	3 Hrs	1 Day
15°C	2 Hrs	4 Hrs	2 Hrs	1 Day
25°C	1 Hrs	2 Hrs	1 Hrs	1 Days
40°C	0.5 Hrs	1 Hrs	0.5 Hrs	1 Day

Note 1: Full cure 7-14 days. Pull-off adhesion testing is best conducted after at least 3 Days cure

Note 2: Where the Metalox P2 is exposed to direct sun and UV, the maximum recoat time will be considerably reduced. Contact Liquimix for advice

ENGINEERING DATA	Property	Method	Results
	Adhesion Testing	ASTM D4541	> 5 MPa

## POT LIFE

Mixed Product Temperature	Gel Time (Note 1)
10°C	7.5 hrs
15°C	5 hrs
25°C	2.5 hrs
40°C	1 hr

**Note 1:** Pot Life is dependent on product temperature. Keep products cool

## LIMITATIONS

- Pot Life is dependent on mix temperature
- Thin film dry times are dependent on temperature and film thickness
- Thicker films will take longer to cure through
- Higher cure temperatures and direct exposure to the sun will shorten the recoat times
- Product requires up to 14 days to develop full physical properties and adhesion. Pull-off or other adhesion testing might not produce accurate results during this period

## SURFACE PREP

### Steel

1. Remove all rust, mill scale, oil and any previously applied coatings back to bare clean steel using abrasive blast. Welds should have slag and spatter fully removed.
2. Abrasive blast to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. A sharp, angular surface profile of 60-100 microns is recommended.
3. For permanent immersion remove any soluble salts on the steel surfaces. The concentration of soluble salts must be less than 5 micrograms/cm<sup>2</sup>

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## APPLICATION

### Equipment

Single Component Graco Airless Pump	Tip Range 17-21 Thou (0.38-0.53 mm). Output fluid pressure at spray tip not less than 3000 Psi (210 kg/cm <sup>2</sup> )
Pressure Pot	Output fluid pressure not less than 50 Psi (2.51 kg/cm <sup>2</sup> )
Roller and Brush	Suitable for small areas
Temperature of material at gun:	Ambient

### Environment

Relative humidity:	The relative humidity must be less than 85%
Dew point:	The substrate temperature must be at least 3°C higher than the dew point temperature
Substrate Temperature:	The substrate temperature must be a minimum of 5°C

### Mixing

Always stir Metalox P2 Part A (Coloured pigmented) and Part B in their original containers well before use.  
Mechanically mix (by volume) 4 Part of Metalox P2 Part A with 1 Part of Metalox P2 Part B hardener (4:1). Do not vary from this ratio. Do not attempt to part mix and make up the entire mix.  
Avoid entrapping air during mixing

### Thinning

Thinning of Metalox P2 is not considered necessary or desirable.

### Cleanup

LM1 Thinner may be used for general clean-up of equipment and hoses. For soaking of contaminated metal parts use SWELL. The use of plastic soak containers with clip on lids and removable baskets makes the job easier. Replace the SWELL regularly as soon as it starts turning cloudy and dirty.

NOTE: NEVER USE SWELL TO CLEAN PAINTED SURFACES, AS IT WILL STRIP THE PAINT. NEVER USE SWELL TO FLUSH PUMPS AND HOSES. DO NOT ALLOW SWELL TO COME INTO CONTACT WITH THE OUTSIDE PROTECTIVE POLYURETHANE COVER OF HOSES.

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## COMPATIBILITY

### Primers

No Data

### Topcoats

Elaston W80  
Tufflon P80  
Tufflon P90  
Hybron W90  
Hybron H90

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## TYPICAL SYSTEM

Substrate	Environment	Substrate Prep	Coat	System	DFT
Steel	Steel Abrasive Resistant	Abrasive Blast	1 <sup>st</sup> Coat 2 <sup>nd</sup> Coat	Metalox P2 Hybron W90	30µm 3000µm
Steel	Structural Steel External	Abrasive Blast	1 <sup>st</sup> Coat 2 <sup>nd</sup> Coat	Metalox P2 Tufflon P90	30µm 3000µm
Steel	Structural Steel External	Abrasive Blast	1 <sup>st</sup> Coat 2 <sup>nd</sup> Coat 3 <sup>rd</sup> Coat	Metalox P2 Tufflon P90 Opalon – S30	30µm 3000µm 75µm

## STORAGE & HANDLING

Store in dry, shaded conditions away from sources of heat and ignition and in original properly sealed containers. Protect from heat and frost. Protect contents from moisture. A shelf life of 24 months minimum is typical with unopened containers if stored at ambient conditions at 25 °C. If either component is opened and partially used, it should be purged with nitrogen or desiccated air and resealed.

## PACK SIZE

### 20L Kits

16L of Metalox P2 Part A in a 4L Container

4L of Metalox P2 Standard Part B in a 1L Container or 1L of Metalox P2 Fast Cured Part B in a 1L Container

### 5L Kits

4L of Metalox P2 Part A in a 4L Container

1L of Metalox P2 Standard Part B in a 1L Container or 1L of Metalox P2 Fast Cured Part B in a 1L Container

## HEALTH & SAFETY

Metalox P2 is for professional use only.

The product contains isocyanates and may require the use of air feed hoods,

This product should not be used without consulting the Safety Datasheet (SDS) as published on the Liquimix website first.

Please observe all health and safety as well as environmental legislation that applies in your state

## DISCLAIMER

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