HYDRALOX

Waterborne Epoxy Resin

TECHNICAL DATA SHEET

DESCRIPTION

HYDRALOX is a waterborne epoxy system designed for the building and civil construction industries. It is especially good for use on damp or green concrete, is solvent-free and cures well at low temperatures (10^{0}C) and high humidity (85%). It also exhibits good anti-corrosive and chemical resistance properties and shows high adhesion to both steel and concrete. Its consistency can be modified with the addition of tap water and it can be blended with sand and cement for render and patch repairs. Tools clean up in water

ADVANTAGES

- Clean up with water
- Excellent adhesion to damp or dry surfaces including green concrete
- Cost effective concrete protection
- Long pot life
- Fast drying time
- Low colour and good yellowing resistance
- Low odour
- Non-flammable
- No VOC's
- Brush, roller or spray application

APPLICATIONS

- Anti-corrosion for steel tanks
- Chemical resistance for secondary containment
- Concrete primer prior to over-coating
- Fill with sand and cement for patching
- Use on wet or green concrete
- Floor paint with addition of fillers and pigments

RESIN & HARDENER PROPERTIES

PROPERTIES	Resin A	Hardener B
Appearance	Clear Liquid	Amber Liquid
Viscosity2 @ 25 °C, [cps]	600	1,200
Specific Gravity @ 25°C	1.12	1 .0
Solids Content, [wt %]	100	53
Mix Ratio – Parts by volume	1	2

CURED PROPERTIES

PROPERTIES	TEST METHOD	RESULTS
Mix Ratio (volume)	Resin : Hardener	1:2
Pot Life (hrs)	@ 25^{0}C	1 - 2
Thin film Gel Time (hrs)	@ 25^{0}C	3.5 – 4.5
Hardness - Shore A	ASTM D 2240-91	90
Hardness - Shore D	ASTM D 2240-1	45
Elongation at 24°C	ASTM D412 06ae2	1-2%
Abrasion Resistance	ASTM c501-84, H18 wheel @ 1000rpm with 1000g weight	98
Tensile Strength	ASTM D412-92	16.0 MPa
Tear Strength	ASTM D412-92	98 N.mm
Solids (%)		76.5
Flash Point	Pensky Martens	>180°C
Theoretical Coverage	1L of A+B	3m^2 – 5m^2
Early Fire Hazard	AS1530 Part 3 (1989)	2mm sample
Properties	Ignitability Index (0-20) Spread of Flame Index (0-10) Heat Evolved Index (0-10) Smoke Developed Index (0-10) ASTM D 1692-68	16 8-9 9-10 7 Self-Extinguish

HYDRALOX – USE WITHOUT ADDITION OF WATER

HYDRALOX can be used neat once the two parts are mixed together. Add 1 part of resin to 2 parts of hardener (by volume) while mixing well with mechanical stirrer. For best results stir the hardener while slowly adding the resin. Once mixed the HYDRALOX will become a thick cream colour. Try not to entrap air while mixing. Waterborne systems require better mixing than standard 100% solids liquid epoxy resins. Apply directly to the surface with brush, roller or spray. The product will cure to form a clear coating.

HYDRALOX – USE WITH ADDITION OF WATER

Add water to reduce viscosity. This eases application and also ensures the first coat penetrates well into concrete surfaces. Ensure that parts A & B are well mixed before the addition of water commences. For best results add the water in small portions, mixing each thoroughly before addition of the next portion. Add a maximum of 1 part water to 1 part of resin/hardener mix as shown in the table below.

Water addition	1st Coat	2nd Coat
HYDRALOX mix (A+B)	1	1
Tap water	1	0.5

HYDRALOX – WITH SAND & CEMENT TO FORM PATCH GROUT

Add fine washed quartz silica sand and cement for filling bug holes, patching, resurfacing and generally profiling concrete. Add tap water for desired consistency. Typical mix is shown in table below.

Typical grout mix	Parts by volume
HYDRALOX mix (A+B)	1
Portland cement	1
Washed fine silica sand	1

APPLICATION METHOD

Apply with brush, roller or conventional spray equipment. For roller and brush application, work into the surface sufficiently to ensure thorough wetting of the surface and to eliminate air bubbles.

RECOAT

- Recoat in about 4 hours (or when touch dry) and no longer than 24 hours.
- Allow at least 24 hours to cure before over-coating with other systems.

Figure 1
HYDRALOX waterborne epoxy primer and Megalox epoxy paste ready for use

Figure 2
Typical below floor tanking preparation

Figure 3
Tank walls filled with Megalox, primed with HYDRALOX and coated with Tufflon-P90 polyurea

Liquimix Pty. Ltd.
24 Rosa Place, Richlands, Queensland 4077, Australia Tel
+61 7 3277 6655 Fax +61 7 3009 0558 www.liquimix.com