

# Enviro HP1600

## HIGH PERFORMANCE SPRAY POLYUREA ELASTOMER

**Enviro HP1600** is a two-component, spray applied, solvent free, flexible, and 100% solids polyurea elastomer system. Enviro HP1600 is a fast curing, multipurpose material designed for commercial and industrial applications requiring high chemical resistance, abrasion resistance, impact protection and sealing of cementitious, metal and wood surfaces at temperatures up to 170°C.

### FEATURES AND BENEFITS

- ⦿ Fast curing
- ⦿ Solvent free
- ⦿ UV resistant
- ⦿ High chemical resistance
- ⦿ Trafficable
- ⦿ Flexible
- ⦿ 100% solids
- ⦿ Moisture tolerant
- ⦿ Excellent abrasive resistance

### APPLICATION SOLUTIONS

Enviro HP1600 is used to provide a 100% trafficable waterproof, wear and chemical resistant coating in commercial and industrial applications.

- ⦿ Mining slurry pits
- ⦿ Roof tops
- ⦿ Chemical bund areas
- ⦿ Non-slip floors
- ⦿ Bridge decks
- ⦿ Sewerage treatment
- ⦿ Tanks
- ⦿ Cut and covered tunnels
- ⦿ Pipes
- ⦿ Critical waterproof areas

### CLASSIFICATIONS

AS/NZS 4858:2004 Class III Approved  
 AS 4654.1:2012 Non Exposed Class III Approved  
 Green Star Compliant – Design and As Built v1.2, Section 13.11

### PRODUCT INFORMATION

**Packaging:** Available in 43kg kits.

**Colour:** Grey.

**Mix ratio:** 1:1 (A:B) By volume.

**Shelf life:** Enviro HP1600 can be stored in its original sealed containers for 12 months. Once opened and resealed for later use, the shelf life could vary depending on storage conditions. Always check product quality before using after prolonged periods of storage.

**Storage:** Enviro HP1600 should be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5°C and +35°C.



WATERPROOFING



## Directions for Use

### SUBSTRATE PREPARATION

All defective host substrate must be removed prior to application. Defective material includes cracked or structurally weakened surfaces and chloride contaminated and carbonated concrete. A concrete corrosion expert must be consulted for critical projects or structural applications. Host concrete must be roughened and aggregate exposed to ensure good bond. Removal of laitance is important to ensuring good bond. Shot-blasting, scarification, mechanical chipping or high-pressure water blasting may be used to achieve a recommended minimum CSP3 surface finish.

All surfaces must be dry, free of dust, oils, and surface contaminants. This may require steam cleaning or high-pressure water blasting. Apply the Enviro Flex FL or FC polyurethane sealant (and allow to cure), to all joints, cracks etc. prior to the application of Enviro HP1600. Enviro HP1600 is suitable for use over the following substrates:

- ④ New concrete - cured for min. 28 days  
under 4.5% moisture (gravimetric method)
- ④ Fibre cement sheets - walls (min. 6mm)
- ④ Renders and screeds - cured for min. 7 days  
under 4.5% moisture (gravimetric method)
- ④ Compressed fibre cement (min. 15mm)
- ④ Plasterboard walls - wet area grade only (min. 10mm)
- ④ Plywood (PAA) - wet area grade only
- ④ Steel

*NOTE: Mechanical abrasion of the substrate is recommended for pedestrian traffic applications. Substrate moisture content measured using gravimetric testing. As measured using Tramex CME 4 Moisture Meter.*

### PRIMING

Substrate condition and other requirements will dictate primer selection. Apply Enviro Epoxy B-LV or Enviro Prime P2 to suitably prepared substrate by brush, roller or squeegee as per individual products recommendations. Allow primer to fully cure before proceeding with the application of Enviro HP1600. Refer to selected primer product data sheets for further application details.

### BOND BREAKING

Apply a suitable polyurethane sealant to form smooth, 15mm flexible cove to all internal corners, penetrations and joints. Allow to skin prior to application of Enviro HP1600.

### MIXING

Mixing by way of 1:1 mix ratio by volume, in heated plural component spray equipment such as Graco E-10 or EXP-2.

### APPLICATION

Enviro HP1600 must be sprayed using plural component dispensing equipment such as Graco E-10 or EXP-2. Drums of components should be pre-heated to at least 25°C prior to mixing or dispensing into the spraying equipment. Mix part B thoroughly with a mechanical power mixer before use. Product is to be applied at temperatures no less than 0°C or no more than 35°C. Please see Coverage Rate table for further details. Minimum application requirements set forth by the NCC and relevant Australian Standards should be followed when applying Enviro systems products.

**Equipment pressure:** 2000psi minimum

**Spray gun:** #02 Spray chamber

**Hose temperature:** Part A 60°C, Part B 60°C

**System temperature:** Part A 60°C, Part B 60°C

### CLEANING

Cured Enviro HP1600 is difficult to remove chemically. Spillages should be minimized and cleaned up immediately to limit damage. Observe all OH&S and Safety Data Sheet information pertaining to safe usage and handling of solvents.

### LIMITATIONS

Product must not be applied in rain or if wet weather is imminent. Do not apply to damp or contaminated surfaces or directly over protective coatings. Product must not be used as a or UV stable coating. Use with adequate ventilation.

## Product Data

### PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	RESULTS
Mix Ratio (by Volume)		1:1
Mix Time		3 seconds @ 20°C
Gel Time		8 seconds @ 20°C
Cure Time		85% - 1 hour @ 20°C 100% - 7 days @ 20°C
Pedestrian Traffic		16 - 24 hours
Hardness (Shore A)	AS1683.15.2	95 ±5
DIN Abrasion		185 - 190mm <sup>3</sup>
Tensile Strength	AS1683.11/ISO37	16.5MPa
Elongation	AS1683.11/ISO37	185%
Tear Strength (Angle)	AS1683.12/ISO34-1	65kN/m
Trouser Tear Resistance		15kN/m
Colour		Grey
Density	AS1683.4	1057kg/m <sup>3</sup>

### CHEMICAL TESTING

MATERIAL	RESISTANCE	MATERIAL	RESISTANCE
Acetic Acid (10%)	Excellent	Formic Acid (5%)	Excellent
Alcohol	Excellent	Hydrochloric Acid (5%)	Excellent
Automotive Petrol	Good	Hydrochloric Acid (45%)	Fair
Automotive Oil	Excellent	Hydrogen Peroxide (10%)	Excellent
Aviation J P Fuel	Excellent	Lactic Acid (10%)	Fair
Benzene	Good	Kerosine	Excellent
Boric Acid	Excellent	Linseed Fatty Acid	Excellent
Brine Solution	Excellent	Nitric Acid (10%)	Excellent
Citric Acid (10%)	Excellent	Phosphoric Acid (50%)	Excellent
Diesel Fuel	Good		

### COVERAGE RATES

Recommendations for external applications: 1.5mm Dry Film Thickness 1.6kg/m<sup>2</sup>

Recommendations for full immersion applications (HP1600PW ONLY): 3mm Dry Film Thickness 3.2kg/m<sup>2</sup>

### CURING TIME

Full cure can be achieved in 5 - 7 days. Curing rate is dependent on ambient and substrate temperatures and relative humidity. Generally, as the temperature increases, the curing time decreases.



## Contact Enviro systems

### NEW SOUTH WALES - HEAD OFFICE

Ground Floor, 295 Princes Highway, St Peters NSW 2044 | [info@envirosystems.com.au](mailto:info@envirosystems.com.au)

### QUEENSLAND

Unit 3, 28 Burnside Road, Yatala QLD 4207 | [info@envirosystems.com.au](mailto:info@envirosystems.com.au)

### VICTORIA

49 Wood Street, Thomastown VIC 3074 | [info@envirosystems.com.au](mailto:info@envirosystems.com.au)

### WESTERN AUSTRALIA

78 Discovery Drive, Bibra Lake WA 6163 | [perth@envirosystems.com.au](mailto:perth@envirosystems.com.au)

### PHONE

1300 WATERPROOF (928 377)

#### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this publication is based on the present state of our best knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use of application and no warranty as to accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

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*NOTE: All products manufactured by Enviro systems comply with the description and properties indicated in the technical data sheet that was current at the date of manufacture.*