

Enviro HP1600

High-performance Spray Polyurea Elastomer

DESCRIPTION

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

CLASSIFICATION

AS/NZS 4858:2004 – Internal Wet Area Membrane, Class III

AS 4654.1:2012 – External Membrane (non-exposed), Class III

Green Star – Compliant, Design and As Built v1.2, Section 13.1.1

AREAS OF USE

SURFACES: New concrete renders and screeds, fibre cement sheet, compressed fibre cement, wet-area plasterboard, wet-area plywood (PAA), and steel.

AREAS: Mining slurry pits, rooftops, chemical bund areas, non-slip floors, bridge decks, sewage treatment, tanks, cut-and-cover tunnels, pipes, and critical waterproof areas.

FEATURES & BENEFITS

- Fast curing
- Solvent-free, 100% solids
- High chemical resistance
- Excellent abrasion resistance
- Trafficable
- Flexible
- Moisture tolerant
- Heat resistant to 170°C.

PRODUCT INFORMATION

Packaging	43kg kits
Colour	Grey
Mix Ratio	43kg Kit: 23 : 20 (A : B) by Weight 1 : 1 (A : B) by volume
Shelf Life	12 months in original sealed containers
Storage Conditions	Store in dry conditions, protected from direct sunlight, between 5°C and 35°C.

Compatible Primers Enviro Epoxy B-LV
Enviro Prime P2

Compatible Sealants Enviro Flex PU FL
Enviro Flex PU FC

Compatible Coatings Enviro HP1200 AC
Enviro 950 TC

PHYSICAL PROPERTIES

Property	Test Method	Test Result
Mix Time @ 20°C	–	3 seconds
Gel Time @ 20°C	–	8 seconds
Cure @ 20°C	–	85% in 1 hour; 100% in 7 days
Pedestrian Traffic	–	16–24 hours
Shore A Hardness	AS 1683.15.2	95 ±5
DIN Abrasion	–	185–190 mm ³
Tensile Strength	AS 1683.11 / ISO 37	16.5 MPa
Elongation	AS 1683.11 / ISO 37	185%
Tear Strength (angle)	AS 1683.12 / ISO 34-1	65 kN/m
Trouser Tear Resistance	–	15 kN/m
Density	AS 1683.4	1057 kg/m ³

Chemical	Resistance	Chemical	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 JP Fuel	Excellent	Lactic Acid 10%	Fair
Benzene	Good	Kerosene	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		



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COVERAGE RATE

Application	kg/m ²	Coats	Finished DFT
External Application	1.6	–	1.5mm

Full cure in 5–7 days, depending on ambient and substrate temperature and humidity.

SUBSTRATE PREPARATION

All defective host substrate must be removed prior to application, including cracked or structurally weakened surfaces and chloride-contaminated or carbonated concrete. A concrete corrosion expert must be consulted for critical projects or structural applications.

Roughen host concrete with aggregate exposed and laitance removed, to a minimum CSP3 profile, by shot-blasting, scarification, mechanical chipping, or high-pressure water blasting. All surfaces must be dry and free of dust, oils, and contaminants; this may require steam cleaning or high-pressure water blasting.

Apply Enviro Flex PU FL or Enviro Flex PU FC (and allow to cure) to all joints and cracks before application.

Enviro HP1600 is suitable for use over:

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

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

Priming: Substrate condition will dictate primer selection. Apply Enviro Epoxy B-LV or Enviro Prime P2 by brush, roller, or squeegee as per the primer data sheet, and allow to fully cure before application.

Bond breaking: Apply a suitable polyurethane sealant to form a smooth 15 mm flexible cove to all internal corners, penetrations, and joints. Allow to skin before application.

APPLICATION

Mixing: Mixed at a 1:1 ratio by volume in heated plural-component spray

equipment such as Graco E-10 or EXP-2. Mix Part B thoroughly with a mechanical power mixer before use.

Application: Spray using plural-component equipment. Pre-heat drums to at least 25°C before dispensing. Apply at temperatures between 0°C and 35°C. Follow the minimum requirements of the NCC and relevant Australian Standards.

Spray Setting	Value
Equipment Pressure	2000 psi 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

For applications or situations not covered above, contact EnviroSystems technical support.

CLEANING

Cured material is difficult to remove chemically. Minimise spillages and clean up immediately with Enviro Thinner No. 1. Observe all safety information and the SDS relating to solvents.

LIMITATIONS

- Do not apply in rain or if wet weather is imminent.
- Do not apply to damp or contaminated surfaces or directly over protective coatings.
- Not for use as a UV-stable decorative finish – topcoat with Enviro HP1200 AC or Enviro 950 TC where colour stability is required.
- Use with adequate ventilation.

HEALTH & SAFETY ADVICE

When using Enviro HP1600, always provide adequate ventilation and wear appropriate PPE, including respiratory protection during spraying. Avoid contact with skin and avoid breathing vapours or spray mist. Wear protective eyewear. If inhalation effects occur, move to fresh air. If discomfort persists, any breathing difficulties occur or if swallowed, seek medical attention. Refer to the Safety Data Sheet for full safety and handling procedures.

KEEP OUT OF REACH OF CHILDREN

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



WATERPROOFING

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is of a general nature, no assumption can be made as to a product's suitability for a particular use or 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.

NOTE: Field service where provided does not constitute supervisory responsibility. Suggestions made by EnviroSystems, either verbally or in writing may be followed, modified, or rejected by the owner, engineer, or contractor since they, and not EnviroSystems, are responsible for carrying out procedures appropriate to a specific project.

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

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