

PRODUCT DESCRIPTION: FIBSEAL PUR UF HY is a high elongation two-component hybrid polyurea spray system, specifically formulated for crack-bridging applications. Polyurea-based systems are characterized by their fast cure and high-performance properties and are therefore used in various coating and non-coating applications (waterproofing, protective, sealing, ...). It can be applied to a thickness of 1–5 mm in a single application. FIBSEAL PUR UF HY can be applied exterior below-grade or between-slab. It protects structure from water penetration. It permits expansion and contraction of the substrate. It has a wide service temperature range and hence it is suitable for all climates. It resists bacterial attack, many acids, alkalis and salts. It forms a seamless membrane and hence eliminates overlapping, seaming and pre-cutting.

AREAS OF APPLICATION

Above grade between two-course concrete and within cavity walls.

Exterior below grade on masonry:

- Concrete
- Incidental metal
- Parking garages
- Plaza decks
- Malls
- Fountains
- Pools
- Balconies
- Planters
- Bridges
- Highways

Below grade

- Slabs walls
- Culverts
- Sea walls
- Dams
- Reservoirs
- Concrete tanks
- Exterior plywood

ADVANTAGE

- High flexibility
- Fast cure, treated surfaces can return to service fast, or can be fast further processed
- Relative moisture and temperature insensitivity
- Good adhesion to a variety of substrates
- Excellent physical and mechanical properties
- Good film-forming characteristics
- 100% solids, low VOC

APPLICATION METHODOLOGY

SURFACE PREPARATION

Substrate preparations – general recommendations:
The spray systems should only be applied to clean, dry and sound surfaces. Remove all dust, oil, grease and loose rust or any other foreign material to ensure adequate adhesion.

Concrete:

The concrete shall be completely cured (or minimal 28 days). Laitance, release agents and salts need to be removed by high pressure water jetting. Other substrate cleaning guidelines can be consulted via SSPC-SP13, NACE 6. A primer is generally needed to achieve an adequate adhesion.

Metal/steel:

The metal surface needs to be prepared by means of blasting to near white. The surface profile will ensure adequate mechanical adhesion. Solvent cleaning is needed to remove the oil and grease.

If priming is needed, this should be done as soon as possible after the sandblasting to prevent any flash rusting. If 8 hours are exceeded, sandblasting needs to be repeated.

MIXING

Mixing is carried out in a specially designed drum mixer or in a bucket with the help of drill mixer fitted with paddle. Mix FIBSEAL PUR UF HY A & B component thoroughly with the help of mixer/drill mixer till a homogeneous mix is obtained.

PRIMING

Use FIBSEAL PUR PRIMER for priming.

APPLYING AND LAYING

The mixed material should be applied to the prepared surface using spray. Ensure mix material is spread evenly. The work area should be protected during the installation process and during the initial curing time to ensure that no airborne debris can contaminate the surface.

CLEAN UP

- Clean all tools immediately after use with Fibrex Paint Remover. Do not allow material to harden.

FIBSEAL PUR UF HY

Two-component hybrid polyurea spray system

Product # 114.56
Version no: 20.03.24

TECHNICAL SPECIFICATIONS

		Unit	Standard
Type	Hybrid Polyurea		
Ratio	1:1(by Volume)		
Coverage	1.1kg/m ² /m		
Gel time	4	seconds	
Tack free time	6	seconds	
Hardness	25	Shore D	DIN 54505
Tensile	12	MPa	DIN 53504
Elongation	570	%	DIN 53504
Tear Resistance/ strength	50.4	N/mm	ASTM D624-2000
Abrasion (1kg, H22 wheels)	<.01	%	ASTM D4060
Service temperature	-30deg C +80deg C		
Capillary water absorption	0.717	%	ISO 62:2008(E) Method A
Capillary water absorption	1.550	%	ISO 62:2008(E) Method B
Resistance to Water Pressure	Degree of damage 0	0-5	DIN EN ISO 16925 – Test Method A
Resistance to Water Pressure	Degree of damage 0	0-5	DIN EN ISO 16925 – Test Method B
VOC Content	0	%	DIN EN ISO 11890-1 / ASTM D-1259
Solid Content	100	%	DIN EN 827 / ASTM D-2697
He Permeability	0	cm ³ · mm/m ² · atm	Variable-Pressure permeability
CO ₂ Permeability	0	cm ³ · mm/m ² · atm	Variable-Pressure permeability
Pull of Adhesion value	≥ 4 (Concrete Substrate)	MPa	EN 1348-2007
Pull of Adhesion value	≥ 15 (Metal Substrate)	MPa	EN 1348-2007
Puncture Resistance	853	N	ASTM E 154
Root Resistance	Pass		PD CEN/TS 14416:2014
Crack Bridging	Upto 3 mm		

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FIBSEAL PUR UF HY is unaffected by a range of mild acids, alkalis and water borne salts and is resistant to bio deterioration.

S. No.	Chemical Description	Difference in Mass (%)
1	10% HCl Solution	+2.32
2	15% H ₂ SO ₄ Solution	+6.58
3	10% H ₃ PO ₄ Solution	+4.76
4	10% Acetic Acid Solution	+2.46
5	Sea Water	+0.18
6	Wastewater	+0.88
7	Water at 140 °F (60 °C)	-0.43
8	Diesel Fuel	+4.70
9	20% Ammonium Hydroxide	-0.027
10	50% Ammonium Hydroxide	+0.71
11	10% Potassium Hydroxide	-0.40
12	20% Potassium Hydroxide	-0.21
13	Gasoline Unleaded	-7.74
14	Deionized Water	-0.13
15	Motor Oil	+3.22
16	Hydraulic Acid	+2.85

PACKAGING

FIBSEAL PUR UF HY

A part (PU Resin) - 206 kgs in Metal drums
B part (PU Hardener) - 225 kgs in Metal drums

STORAGE

Store the material at temperatures between + 10° C and + 35° C in originally sealed packages, the material can be stored for six months. But, before opening the drums, be assured that the temperature of the materials has the ambient temperature to avoid condensation. Open containers of material should be used quickly to avoid moisture contamination. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

Tech Data

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PRECAUTIONS

During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and using, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL / SPILLAGE

Spillage of the product should be absorbed onto sand or other inert material and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

HEALTH AND SAFETY

This material is intended to be used by trained professionals with proper equipment's. The following safety measures are recommended:

- Wear protective gloves, clothing, goggles, hearing protection for noise reduction and hard hats for falling debris.
- Do not eat, drink or smoke while in active contact with these materials.
- Avoid skin contact.
- Wash hands thoroughly with soap and cool water.
- Never wash the skin with a solvent.
- Anyone experiencing difficulty breathing when working with these materials or showing an allergic reaction should seek fresh air immediately and consult a physician if symptoms persist.

DISCLAIMER

Fibrex Construction Chemicals pvt. ltd. products though are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Fibrex wishes to clarify that any advice, recommendation, specification or information is accurate and correct, though it cannot, at any time assume any liability either directly or indirectly arising from the use of its products. This is because it has no direct or constant control over where or how its products are applied, and whether or not in accordance with the advice specification, recommendation or information given by it.

FIBREX OTHER PRODUCTS – WE DO

