BAUTECH CHEMICAL INDUSTRIES

BAUTHENE PU PF

2 Part Pitch Free Polyurethane Sealant

DESCRIPTION

BAUTHENE PU PF is a two component pitch free, self-leveling, chemically curing polyurethane resin based joint sealant.

BAUTHENE PU PF is specifically designed for dynamic joints in concrete roads, runways, pavements. it is based on a liquid polyurethane polymer which when mixed with the hardener, cures to form a tough, hard wearing seal which has excellent resistance to fuels, oils and chemicals.

BAUTHENE PU PF is suitable for use in horizontal areas with a maximum slope gradient of 10%. The sealant has a movement Accommodation Factor (mAF) of ±25%

TYPICAL USES

Sealing of movement and control joints in:

- Concrete runways, aprons, pavements
- Fuel and chemical spillage areas
- Sealing of floor joints in car parking decks, warehouses
- Highways & bridge

ADVANTAGES

- Good resistance to chemicals, aviation fuels, hydraulic fluids and hydrocarbon fuels Self leveling- easy to apply
- High movement capability
- Pitch free.
- environmental friendly
- Excellent resistance to ageing and Weathering.
- Non-staining & Non-toxic

BAUTHENE PU PF complies with the requirements of:
BS 5212: Part 1,
ASTM C 920, Type m, Grade P, Class 25,
USe T & SSS-200 e (for jet fuel resistance)

TECHNICAL PROPERTIES

(The properties shown below were obtained under laboratory conditions).

Color	Grey/Black
Density	1.5± 0.03 g/cc
Consistency	Free Flowing
Application Life	20 minutes
Shore A Hardness	25 -40
Adhesion to concrete,	>25 N
Initial Cure	24 hours
Full Cure	7 days
Chemical resistance	pH 2.5 to 11.5, , Hydrocarbon fuels, Aviation Fuel, Hydraulic fluid, Sea water
Cure rate	1 mm per day
Application temperature, [°C]	5 to 45 deg C
Service temperature, [°C] -20 to 70 deg C	-20 TO 70 deg C

APPLICATION INSTRUCTION

SURFACE PREPARATION:

The joint surface must be clean, dry and free from oil, loose particles, cement laitance and other contaminants which may affect the adhesion. A thorough wire brushing, grinding, sand blasting or solvent cleaning may be required to expose a clean and sound substrate. The compressible joint filler shall be cut back to expose a uniform joint depth

PRIMING

Primer should be applied to a clean, dry surface prior to the installation of backer rod or bond breaking tape. BAUPRIME PS is recommended to be applied on porous substrates. The primer shall be applied by a brush in a thin coat application and shall be allowed to become tack free prior to the application of the sealant. The joint edges shall be re-primed if the sealant installation is not carried out within 3 hours of application of the primer. For obtaining a clean and neat finish, masking tape shall be applied on both the edges of the groove before applying the primer

BACK-UP MATERIAL

A bond breaking backing rod shall be inserted into all movement joints to avoid a three sided adhesion. Use of a backing rod will ensure proper joint depth and at the same time facilitate the formation of an hour glass profile on the applied sealant. The backer rod will also provide resistance to sealant tooling pressure and help to attain proper wetting of the substrate when the sealant is being tooled. The backing rod being inserted into the joint shall be of a diameter which is at least 20% larger but not greater 33% of the joint width. This will ensure that the backer rod remains in compression and in place during sealant installation. For static and joints where the depth is not sufficient for the use of the backing rod, a bond breaking tape may be applied to prevent the three side adhesion.

CAUTION: Do not damage or poke holes in the backer rod during or after installation, since this may cause air bubbles in the sealant and affect its performance.

MIXING & APPLICATION

BAUTHENE PU PF is supplied in pre-weighed two part packs, which requires on site mixing. Pour the hardener (Part B) into the base (Part A) pail and mix thoroughly with a slow speed drill (300-400 rpm) fitted to a flat bladed paddle for 1-2 minutes till a uniform colour and consistency is achieved.

DO NOT PART MIX. Since the base and the curing agent ratio controls the ultimate physical properties like adhesion, durability and strength, one complete kit has to be mixed at a time.

The side and base of the container shall be periodically scrapped with a scrapper to ensure that the curing agent is properly dispersed and blended in the mix.

Pour the mixed material directly into the joint from the pail. Initially fill 2/3rd of the sealant, tool it properly allowing it to fill all the irregular areas inside the joint. The tooling will also allow the entrapped air to escape. Then pour the balance 1/3rd material and further tool it to get a smooth surface finish.

The material should be used completely within the specified pot life. Once the sealant has been installed a suitable rounded tool can

be used to achieve an hour glass profile. Any masking tape applied should be removed immediately after the sealant is installed.

LIMITATIONS

BAUTHENE PU PF is not recommended for:

Joints with slope gradient greater than 10% movement

Joints having mAF >25%

Damp and contaminated surfaces

Asphalt pavements

Over painting (paint compatibility with sealant shall be checked prior to painting)

Joints >50mm width.

JOINT DESIGNS

The width of the joint should be a minimum of 4 times the anticipated movement. Joints with cyclic movement should have a width to depth ratio of 2:1 for butt joints and 1:1 for floor, static and lap joints.

The joint depth shall not exceed the width. The joint width and depth should be maintained as recommended:

- **Joint Width** 6 mm (minimum) 25 mm (maximum)
- **Joint Depth** 6 mm (minimum for porous surfaces) 15 mm (minimum for non porous surfaces)

COVERAGE

Length of joints in meters filled per 1 Ltr of BAUTHENE PU PF.

Depth (mm)	**Width (mm)**						
	10	**15**	**20**	**25**	**30**	**40**	**50**
10	**10**	**6.7**	**5.9**				
15		**4.4**	**3.3**				
20			**2.5**	**2.0**	**1.6**	**1.25**	
25				**1.6**	**1.3**	**1.0**	**0.8**
30					**1.1**	**0.83**	**0.67**
40						**0.62**	**0.5**
50							**0.4**

NOTE: Calculation based on theoretical coverage. Actual material consumption at site will vary depending on the wastage

PACKAGING: **4 Ltrs KITS.**

STORAGE

Store out of direct sunlight, clear of the ground on pallets. Store under cover, out of direct sunlight and protect from extreme temperatures. In tropical climate the product must be stored in air - conditioned environment (<25ºC). **Shelf life** is 12 months when stored as above.

PRECAUTIONS

As with all construction chemicals products caution should always be exercised. Protective clothing such as gloves and goggles shall be worn. Treat any splashes to the skin or eyes with fresh water immediately.

There are no known health hazards associated with BAUTHENE PU PF

Clean all the tools with water after use. Hardened materials can be removed mechanically only. Allow the waste to cure. Seal it into a suitable container and bury in land fill as per the local regulations.

Note: Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, as the conditions of any labor involved in the application is beyond our control. BAUTECH shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use of this product. It is the responsibility of the user to ensure that the product meets his particular requirements and to use it in a suitable way. Field service, where provided, does not constitute supervisory responsibility. For additional Information contact your local BAUTECH representative.

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