



PU 40 FC

ONE PART ELASTIC FAST CURE POLYURETHANE ADHESIVE/SEALANT

Product Overview

PU40 FC is a one-part, non-sag, polyurethane sealant. Once extruded, it cures by reaction to the atmospheric moisture to form a high performance, dual purpose adhesive and sealing compound with permanent elasticity.

PU40 FC Conforms to:

- ISO 11600/F/25HM

Areas of Application

PU40 FC is a multipurpose, high performance, sealant and elastic adhesive. Bonds well to a wide variety of substrates and enables permanent elastic sealing with high adhesive strength. Suitable substrates are: concrete, wood, metal, painted surfaces and plastics. Over-paintable.

Advantages

- Permanently flexible
- Short cut-off string
- Stable – No shrinkage
- Bonds and seals at the same time
- Adhesion to a wide range of substrates
- Replaces rivets and mechanical fasteners
- Non-sag consistency - Good thixotropy
- Allows equalised stress transfer due to permanent elasticity.
- Vibration and sound dampening properties
- Excellent resistance to ageing, weathering – suitable for indoor and outdoor use
- Over- paintable with many water/solvent based paints (preliminary tests recommended)

Packaging

- 600ml Sausage (12 sausages per box)

General Technical Data

Technical Data	
Appearance	Thixotropic paste
Colour	White
Chemical Nature	Polyurethane
Curing Mechanism	Moisture-curing
Curing through Volume [mm] 1 day at 23°C – 50%	2,0 – 3,0
Non-sag Properties	Good
Shore A (23°C and 50% r.h.; DIN 53505)	35-45
Density [g/cc] (23°C and 50% r.h.)	White:1,35 ± 0,02 Grey: 1,33 ± 0,02 Black: 1,31 ± 0,02
Tack Free Time (23°C and 50% r.h.)	45-75
Elastic Modulus at 100% [N/mm]2	≥ 0,8
Tensile Strength [N/mm]2 (ISO 37 DIN 53504)	≥ 1,8
Elongation [%] (ISO 37 DIN 53504)	≥ 450
Application temperature [°C]	from +5 to +40
Temperature Resistance [°C]	-40/+90, for short period up to 120



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Application

Surface preparation

Pre-test substrates for adhesion. Cleaners and/or primers may be required to achieve optimal adhesion. As a rule, the substrates must be prepared in accordance with the NPT instructions; technical guidance regarding adhesion on specific surfaces may be obtained by submitting substrate samples for analysis to our laboratories. Surfaces must be clean, dry, free of water, oil, grease or rust and of sound quality. Remove all loose particles or residues with a jet of compressed air, sandpaper or hard brush. Glass, metal and other non-porous surfaces must be free of any coatings and wiped clean with solvent. Pre-cast panels using form-release agents other than polyethylene film must be sandblasted or mechanically abraded and dust free.

Pierce through the protective membrane in the front threaded section. Screw on the plastic nozzle and cut it at an angle according to the desired bead thickness and profile. Fit the cartridge into a manual or pneumatic air operated gun (provided with telescopic piston) and extrude the adhesive/sealant carefully preventing air entrapment. Once opened, packs should be used up within a relatively short time.

The optimum operating temperature for both substrate and sealant is between 15°C and 25°C.

Chemical Resistance

Long term resistance to fresh water, seawater, limewater, caustic solutions and cleaning agents. Short term resistance to Petrol, grease and mineral oil. Not resistant to organic acids, concentrated mineral acids or solvents. This information is offered for general guidance only. Advice on specific applications will be given on request.

For sealing purposes

In order to guarantee free movement of the sealant in joints, it is imperative that the sealant does not adhere to the bottom of the joint, therefore for correct joint caulking, a closed-cell polyethylene bead (joint backing rod) is to be placed at the proper depth. Apply appropriate primer to joint sides and observe the waiting time to avoid that any trapped solvent can form bubbles in the uncured sealant due to rising temperatures. Firmly extrude sealant and apply in the joint making sure that it is in full contact with the sides of the joint and with the backing rod at the bottom. Keep the nozzle in the sealant, continue on with a steady flow of sealant preceding the nozzle to avoid air entrapment. Avoid overlapping of sealant to eliminate entrapment of air. Sealant should be tooled to a smooth finish ensuring a full contact to the sides and back up material into the joint, this will also contribute in breaking the air bubbles which may be formed inside the sealant. Masking tape should be used where sharp exact joint lines or exceptionally neat lines are required. Remove the tape whilst the sealant is still soft.

For adhesive purposes

Apply in spots or bead on the prepared surfaces then firmly press the parts which have to be bonded together.

Finishing indications and limitations

Tooling and finishing must be carried out within the tack-free time of the sealant.

PU40 FC can be over-painted. The paint must be tested for compatibility by carrying out preliminary trials. Attention must be observed with the use of alcohol or alkyd-resin since they may interfere with the curing process of the sealant and reduce the drying time of the paint itself. It should be understood that the hardness and film thickness of the paint may impair the elasticity of the sealant and lead to cracking of the paint film.

Avoid exposure to high levels of chlorine (avoid sealing joints in chlorinated swimming pools). Do not cure in the presence of curing silicone sealants. Avoid contact with alcohol and other solvent cleaners during cure. Do not apply when a moisture or vapour transmission condition exists from the substrate as this can cause bubbling within the sealant. When applying sealant, avoid air-entrapment. Since system is moisture-cured, permit sufficient exposure to air. Bonded elements may require additional holding or support during curing period.



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Cleaning of Equipment

Clean tools with acetone or alcohol immediately after use. Cured material can only be removed mechanically.

Personal Protective Measures

Keep out of reach of children. If skin contact occurs, remove immediately and wash with soap and water.

Storage

PU40 FC can be stored for 12 months in its original packaging (unopened container) at 10°- 25°C in a cool, dry place. The storage temperature should not exceed 25°C for extended periods of time. Keep away from wet areas, direct sunlight and heat sources.

General Information

The information contained in this technical data sheet is to the best of our knowledge correct, being based on our knowledge and experience to date and cannot be used as a guarantee, due to the various different materials present on the market and the fact that the application conditions are not under our direct control and supervision. Total Waterproofing Supplies Corporate Pty Ltd has the right to modify or up-date this technical data sheet according to requirements. Customers are kindly requested to verify that they are in possession of the latest version.

ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET BEFORE USING THE PRODUCT.

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Product disclaimer

This Product Data Sheet (PDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this PDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Total Waterproofing Supplies does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.