



Technical Data Sheet

P1

TTP90

TTP HARD drills Limited
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LA3 2UZ
Tel : 0161 327 2741
Email : sales@ttp-hard-drills.com

TTP90 is a fast curing, micro emission, and easy to use structural 2-part polyurethane adhesive. It cures by a chemical reaction of the two components forming a durable polymer resistant to elevated temperature, moisture, fuel, many solvents and chemicals.

TTP90 is specially designed for small, quick, durable bonding and repair jobs. The use of TTP90 yields a fast turnaround due to early sanding and painting capability

TTP90 shows good sag resistance properties, allowing vertical application and offers excellent gap filling properties. In combination with a reinforcing mesh broken or missing bumper tabs can be rebuilt.

TECHNICAL DATA:

Nominal Components Properties:

	TTP90 Part 1 (White)	TTP90 Part 2 (Black)
Chemical base	Reactive Isocyanate Prepolymer	Reactive Polyol Mixture
Colour	White	Black
Specific Gravity [g/cm ³]	~1,24	~1,29
Viscosity [mPas]	~49.000	~50.000
Appearance	Sag Resistant Paste	Sag Resistant Paste

Typical Cure Characteristics:

Working Time	@ 23° C [sec]/[min]	90 / 1,5
Sanding Time	@ 23° C [min]	10
Clamp Time	@ 23° C [min]	5

Typical properties of Cured Adhesive:

Shore D Hardness	EN ISO 868 @ 23° C	73
Tensile Strength	DIN 53504 @ 23° C [MPa]	26
Young's Modulus	DIN 53504 @ 23° C [MPa]	210
Elongation at Break	DIN 53504 @ 23° C [%]	58
Glass Transition Temperature	ASTM E-1640 [°C]	47

The information contained herein are given in good faith based on our current knowledge and experience on the product when properly stored, handled and applied under normal conditions in accordance with our recommendations. In practice the differences in materials, substrates and actual site conditions are such that no warranty in respect to merchantability or fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred from this data sheet. The recommendations or suggestions contained in this data sheet are made without guarantee as to results. We suggest that you test the product's suitability for the intended application and purpose prior to use. Our responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material. TTP HARD drills Limited reserves the right to change the properties of this product. The proprietary rights of third parties must be observed.



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LAP SHEAR INFORMATION:

Substrate	Pre-treatment			Bondline thickness	Expected failure mode	Average strength
	Cleaning	Sanding	Cleaning			
PP	Acetone	P120	Acetone	1 mm	Adhesive	1,41 MPa
PMMA	IPA	P120	IPA	1 mm	Mixed	2,21 MPa
PVC	IPA	P120	IPA	1 mm	Mixed	3,43 MPa
ABS	IPA	P120	IPA	1 mm	Adhesive	3,43 MPa
Carbon	IPA	P120	IPA	1 mm	Cohesive	12,48 MPa
PP/EPDM	IPA	P120	IPA	1 mm	Mixed	1,40 MPa
PA 6	IPA	P120	IPA	1 mm	Adhesive	2,89 MPa
ABS/PC	IPA	P120	IPA	1 mm	Adhesive	2,99 MPa
E-Coat	IPA	P800	IPA	1mm	Coating failure	9,7 Mpa

USER INSTRUCTIONS

TTP90 has been designed for easy dispensing from either hand-held manual and pneumatic applicator tools. To assure a perfect ratio dispense we recommend:
levelling the pistons by placing the opened cartridge in the dispenser and purge till material starts to flow from both cartridge chambers prior to attaching the mixer.
After attaching the mixer tip pull the trigger of the dispensing gun at a constant and steady rate to force both prepolymer and curative through the mixer tip.

Discard the first 25 or 50 mm of dispensed material as it may be off-ratio.

Sufficiently mixed on-ratio adhesive has a uniform black colour, is creamy, smooth and glossy.

The material in the mixer will become very difficult or impossible to dispense at about one-half of the open time. Either keep material flowing through the mixer during application time.

If there has been no movement of product for 45seconds replace the mixer prior to dispensing

After having finished dispensing, leave the mixer in place until TTP90 needs to be used again. The remainder of the adhesive will have a shelf life of several weeks if stored properly. To start using TTP90 again, remove the static mixer and dispose of properly. Carefully clean the cartridge nozzle, the products in the two chambers must be cleanly separated. If there is any black-tan mixing on either side dispense some product out of the openings with no mixer tip attached, until only single component product is visible in each chamber. Finally attach a new mixer and start dispensing.

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SAFETY NOTE:

Please observe the information provided with the Material Safety Data Sheet.

MSDSs are provided to you under our policy of communicating to our customer health, safety and environmental information for safe handling, use and disposal of our products. This information must be made available to health and safety personnel within your organization and to all employees who come in contact with these products.

STORAGE: Unopened containers stored at a dry place indoors at 15 – 32 °C

SHELF LIFE: 24 Months in the originally sealed cartridge

PACKAGING: 2 x 25ml cartridges side-by-side cartridges for use with a hand-held dispensing tool

CERTIFICATES:



Safety
Regular
Production
Surveillance

www.tuv.com
ID 0000081626

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Version 202202