

▶ Description

TamPur 110 / TamKat 110 is a low viscosity, single shot polyurethane based on MDI in combination with polyether polyols and an amine based catalyst. The system only reacts when it comes into contact with water, forming a rigid polyurethane foam.



▶ Key Benefits

- High expansion ratio > 17 times
- Low viscosity
- Solvent free, environmentally safe.
- Reacts with saline and mineral water.
- Good chemical resistance.

▶ Typical Applications

- Soil stabilization
- Underpinning foundations
- Consolidation for ground anchors
- Void filling
- Injection into saturated ground

▶ Technical Data

TamPur 110	
Appearance	Brown liquid
Viscosity at 25°C Brookfield DV 11 spindle no. 1 at 60 rpm	25 - 50cps
Flash Point	> 150°C
Density at 25°C	1.1
TamKat 110	
Appearance	Clear liquid
Viscosity at 25°C Brookfield DV 11 spindle no. 1 at 60 rpm	25 - 35cps
Flash Point	> 130°C
Density at 25°C	0.97

Physical Properties of End Formed Product	
Compressive Strength @ 3 days	3.0N/mm <sup>2</sup>
Flexural Strength (Din 53423)	1691kPa

Reaction Times – TamPur 110		
All Tests Carried Out at 25°C		
TamPur 110	100 parts by weight	
TamKat 110	As a percentage of TamPur 110 by weight, as stated in the results	
Water	In all tests, 10 parts by weight	
TamKat 110	Reaction Time	Solidification
2%	163 seconds	15 minutes
5%	100 seconds	4 minutes
10%	55 seconds	110 seconds

All technical data stated herein is based on tests carried out under laboratory conditions.

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▶ Application Guidelines

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TamPur 110 / TamKat 110 are used for soil stabilisation in water saturated ground to form tieback anchors in loose soils giving high strength in a short period of time. It is also used for the underpinning of foundations and concrete constructions to help prevent any further movement.

Adaptable reaction time is possible by varying catalyst ratio between 2% to 10%. Reaction with water results in the formation of a rigid polyurethane, which forms in combination with the substrate, a hydrophobic and chemically resistant solid mass with good compressive strength.

The end product formed is harmless to the environment and resistant against biological attack. The pre-mixed resin can be pumped by means of a single component injection pump that is suitable for high pressure. Clean the pump thoroughly using TamPur Cleaner after use.

The table in front shows the relation between the dosage of TamKat 110 and the reaction time.

Note: Always make sure that the material is homogenous, mix the resin using a dry clean drill and paddle mixer for a minimum of 15 sec before application.

**Important:** Keep containers sealed whilst not being used. Moisture may be absorbed into the TamPur from the atmosphere causing it to react.

Careful consideration should be given to applications below 10°C on a falling thermometer to avoid possible crystallization.

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▶ Related Products & Equipment

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TamPur Cleaner  
TamPur Ecoclean  
Tam Injection probes  
Tam hand pumps and air driven pumps

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▶ Storage

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TamPur 110 should be stored at room temperature (min 10°C and max 38°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of 1 year can be expected.

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▶ Health & Safety

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TamPur 110 should only be used as directed. We always recommend that the Health & Safety data sheet is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Health & Safety data sheet is available upon request from your local TAM International representative.