

Low Viscosity, Polyurea-Silicate Injection Resin

DESCRIPTION

TamPur 116T is a low viscosity, two component polyurea-silicate resin formulated for injection into soft and hard rock geologies in mining, tunnelling and civil engineering applications. It is specifically designed for rapid stabilisation of coal, concrete and soft ground geologies, providing structural integrity, compressive strength and flexural strength. Its superior performance allows TamPur 116T to be used as a Chemical "Rock Bolt Resin" and on-site tests have demonstrated pull-out strengths in excess of 31 tonnes. Low in peak exotherm reaction and heat development compared to polyurethane.

TamPur 116T is available in two grades, standard (STD) and slow (SLOW).

KEY BENEFITS

- › Non-foaming even in contact with water and will not absorb water
- › Penetrates cracks wider than 0.25 mm
- › Available in two grades STD & SLOW
- › Fast reaction even underwater
- › Fire resistant
- › No agitation of components required beforehand
- › Low odour
- › Environmentally friendly
- › User friendly

TYPICAL APPLICATIONS

- › Stabilising of coal and soft rock strata
- › Consolidation of fractured rock, sands, gravels and coal faces
- › Rock bolting applications
- › Repair of underwater construction
- › Repair of concrete cracks

TECHNICAL DATA

TamPur 116T		
	Component A	Component B
Colour	Clear, light straw	Dark Brown
pH	11.3	5.0
Density at 20°C	1.30 - 1.50 g/cm ³	1.15 - 1.25 g/cm ³
Flash point AS2106.2-2005 Part 2	> 200°C	> 200°C
Viscosity	120 - 350 mPa·s	50 - 300 mPa·s

Reaction data: A:B = 100:82 (by weight) 1:1 by volume		
	STD at 25°C	SLOW at 31°C
Start of reaction	51 s	10 min
Set time	150 s	> 30 min
Maximum exothermic temperature (Mine Safety Test Method TM003, Section 4)	96 - 118°C	
Mechanical Properties		
Compressive strength	> 40 MPa	
Bending strength	> 15 MPa	

All technical data stated herein is based on tests carried out under laboratory conditions. The results may vary in practice due to thermal exchange between resin and strata, surface properties of strata, humidity, pressure and other factors.

APPLICATION GUIDELINES

Components A and B of TamPur 116T are delivered ready-to-use. They are injected in the ratio of 1:1 by volume using a two component injection pump equipped with a static in-line mixer.

Note: The curing reaction time will vary depending on the temperature of the TamPur 116T resin, the strata and the ground water. Both components should be stored above 15°C prior to application.

To achieve thorough mixing of components A & B during injection, use of a static in-line mixer in connection with the mixing head is essential. The length of the static mixer should be at least 50 cm long. Both components A & B drums should be thoroughly shaken before use.

For full application details, please contact your local Normet sales representative.

If voids and cavities must be filled, we advise using our TamPur 117. TamPur 117 is designed for economic filling of voids and cavities. Void filling should be undertaken in stage/lifts, this will reduce the exothermic heat generated during the reaction stage. Polyurethane grout can't be used as void/cavity filling material. Please contact your local Normet representative first, if void/cavity filling is the planned application.

Whilst any information and/or specification contained herein is to the best of our knowledge, true and accurate, we always recommend that a trial be carried out to confirm suitability of the product. Please note regional climatic conditions may cause a variation in the performance of the product. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives, agents or distributors. The information in this data sheet is effective from the date shown and supersedes all previous data. Please check with your local Normet office to confirm that this is current issue.

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PACKAGING

TamPur 116T is supplied in:

40 litre kit - Metal Cans / Plastic Canisters	
Component A	29 kg
Component B	24 kg
400 litre Pack – drums	
Component A	290 kg
Component B	235 kg
2000 litre Pack - IBC tanks	
Component A	1490 kg
Component B	1190 kg

STORAGE

Resins must not be subjected to freezing conditions during transportation and storage. Keep out of direct sunlight, in a well-ventilated area where the average temperature is between 10°C and 45°C, then a shelf life of one year can be expected. (The product can withstand temperature spikes of up to 55°C for up to 24 hours. When stored at constant high temperature above 35°C, a shelf life of six months is expected).

HEALTH & SAFETY

TamPur 116T should only be used as directed. We always recommend that the Safety Data Sheet (SDS) 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 Normet representative.