

Uniseal 280 Gun Grade

Polyurethane Joint Sealant

Description

A two component polyurethane sealant characterised by its inbuilt flexibility, even at low temperatures, excellent adhesion and resistance to a wide range of chemicals. Available in both Gun and Pouring grades.

Advantages

- Cold applied.
- Non-sag type.
- Good movement accommodation.
- Resistant to oil, fuel, hydraulic fluids.
- Tolerant to climatic conditions.
- Simple application.
- Suitable for machine mixing and application.

Guide to Quantities

Joint Size	Litres per metre run	Metre run per litre
10 x 10	0.10	10.00
13 x 13	0.17	5.92
15 x 15	0.22	4.44
20 x 15	0.30	3.33
20 x 20	0.40	2.50
25 x 20	0.50	2.00
25 x 25	0.62	1.60
30 x 25	0.75	1.33
30 x 30	0.90	1.11

Chemical Resistance

Petrol	Resistant
Diesel Fuel	Resistant
Aviation Fuel	Resistant
Kerosene	Resistant
Dilute Acids	Resistant
Dilute Alkalis	Resistant
Lubricating Oils	Resistant
Skydrol	Resistant
White Spirit	Resistant
Aromatic Solvents	Not Resistant
Chlorinated Solvents	Not Resistant

Application Instructions

Preparation of Substrate:

All joints should be dry, free from dirt, dust and grease. Cleaning should be carried out by wire brushing or grinding. Joint sides must be parallel and straight.

Before positioning a bond breaker ensure that the expansion joint filler is tightly packed and no gaps or voids exist at the base of the slot to be sealed.

Priming

All surfaces should have one coat of Uniseal Primer P2 applied and allowed between 15 minutes and 2 hours to dry. The mixed Uniseal 280 should be applied when the primer is tack free.

Note: If application of Uniseal 280 is delayed for more than two hours after priming, joints should be re-primed.



Technical properties of Uniseal 280 Gun Grade

Properties	Standard	Performance Requirement	Declared Value
Appearance			Pigmented thixotropic resin
Base polymer			Polyurethane
Application temperature			5°C to 35°C
Service temperature			-20°C to 70°C
Extrudability	EN 29048	≥70 ml/min.	>70 ml/min.
Pot life			50-70 minutes @ 20°C 2 Hours @ 5°C
Tack free time	EN 14187-2		5 hours
Cure time			Will accept traffic in 24 hours. Full cure in 7 days.
Resistance to flow	EN ISO 7390	Vertical slope ≤2mm Horizontal slope ≤2mm	Vertical slope <2mm Horizontal slope <2mm
S.G.	EN ISO 2811-1		1.15
Loss of volume	EN ISO 10563	≤5%	3.0%
Change in mass and volume after immersion in liquid chemicals	EN 14187-4	<-25% by mass, no increase <30% by volume	-10% -20%
Shore 'D' Hardness			55
Resistance to hydrolysis Shore 'D' Hardness	EN 14187-5	Change in Shore D hardness <±50%	65 (+18%)
Tensile strength	BS 2782-3		10 MPa
Elongation	BS 2782-3		100%
Elastic recovery	EN ISO 7389	>70%	70%
Adhesion - Concrete Adhesion - Steel	EN 1542		2.2 MPa (Concrete failure) 6.5 MPa
Artificial weathering	EN 14187-8	<±20%	+15%
Adhesion/cohesion properties after immersion in liquid chemicals	EN 14187-6 Class C	No failure	No failure
Movement accommodation factor	BS 60936		10% (±5%)

Technical data shown are statistical results and do not correspond to guaranteed minima.

All testing performed at 20°C, unless otherwise stated.

Curing at low temperature may take up to 10 days to fully cure.

(*) Light colours may exhibit colour shade variations on exposure to light.

1 N/mm² = 1 MPa

1 kN/mm² = 1 GPa



Mixing and Application

Add the entire contents of hardener tin to the tin of base and mix using a slow speed drill with a suitable paddle. Mix until a homogeneous mix is obtained. Care should be taken to prevent unmixed material remaining on the sides of the container.

The sealant is then applied to the prepared joint void to finish 5mm below the surface. Use of masking tape will help to obtain a clean finish. The sealant should not be applied at temperatures below 5°C.

For aesthetic purposes very light tooling of the joint material as it gels releases surface bubbles and enhances appearance.

Packaging

Uniseal 280 is available in 2.5 litre composite units.

Uniseal Primer P2 is available in 1 and 5 litre cans.

Cleaning of Tools

Tools should be cleaned with *Nuwash* solvent as soon as possible after use.

Storage

The storage shelf life is approximately 12 months but the material should be used before the date stamped on the container. Storage temperature range is 5°C to 25°C. Store away from foodstuffs and out of the reach of children.

Health & Safety

Product Safety Data Sheets (SDS) are available from Nufins. SDS sheets are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the latest information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product.

Limitations

Do not apply at temperatures below 5°C.

Primers P2 is flammable. Use only in well ventilated areas and do not smoke or expose to naked flames or other sources of ignition.

Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors. Technical contacts are available to provide further information and arrange demonstrations.

