

TOK[®]-Melt N1

Product Information



Bitumen Pouring Compound - TOK[®]-Melt N1

Special Advantages:

- ✓ Fulfils the requirements of **DIN EN 14188-1, type N1**.
- ✓ Fulfils the requirements of the current TL/TP Fug-StB (elastic).
- ✓ Excellent plasto-elastic properties.
- ✓ Type N1 joint compounds can be used for changes in the joint gap width of up to 35%.



TOK[®]-MELT N1 is an elastic hot-poured compound based on polymer-modified bitumen.

For a century now, DENSO Group Germany represents experience, quality and reliability for corrosion prevention and sealing technology. The success of the internationally leading corporation is based on the development of the "DENSO-Tape", which was already patented in 1927 as the first product worldwide for the passive corrosion prevention of pipelines. Since then, the DENSO Group Germany establishes and guarantees the highest quality standards with technically trend-setting products. Research, development and production take place exclusively in Germany. Our employees continuously implement safe and individual solutions in a personal cooperation with the customer.

Product Description

TOK[®]-Melt N1 is a joint sealing compound used to seal horizontal and slightly inclined joints in concrete and bituminous road

surfaces experiencing light to virtually non-existent traffic.

The sealing compound is particularly

suitable for joints in bridge construction between the bridge cap and the road surface.

Typical Material Properties

Type	Plasto-elastic hot-poured compound
Base	Polymer-modified bitumen
Density	1.15 g/cm ³ (approx.)
Pouring temperature	+160 to 180 °C (+320 to 356 °F) (approx.) - DO NOT overheat!
Colour	Black
Usage	1.15 kg (approx.) per litre of fill area
Primer on bitumen/concrete	TOK [®] -S Primer

Product Application

All work must be carried out in accordance with the current **ZTV Fug-StB**.

Sealing depth

For hot-poured compounds, the sealing depth should be 1.5x the joint width or 12 mm, whichever is the greater.

Preconditions

The target road surface for filling and sealing work must be closed to traffic while the work is being carried out. All work must be carried out in dry weather and when the structural component has a surface temperature of over +5 °C (+41 °F).

At temperatures between +2 and +5 °C (35.6 and +41 °F), work can be continued if appropriate additional precautions have been taken. The subsurface must be dry. Concrete must be at least 14 days old. The joint flanges must be dust-free and must not contain any substances capable of acting as release agents.

Preparation of the joint gap

If the joint is already filled, this must be removed down to the planned pouring depth without damaging the joint flanges. Old sealing compound residue does not normally impair the durability of the new compound, assuming the substances are not incompatible. A brushing machine or similar tool should be used for cleaning. Pressure-driven hot air blowers should be used if artificial drying or pre-warming of

the fill area is necessary.

Installation of the liner/Primer

The liner substance must be installed (without causing damage) at the depth necessary for the planned pouring depth.

TOK®-S Primer is applied with a brush or spray equipment and must be applied to form a film that completely covers the flanges of the fill area. Excess liquid must not be permitted to collect on the liner substance. Accordingly, the undercoat should be applied first and the lining installed only once the undercoat has air-dried. The primer must be completely dry before applying the jointing compound. The drying time is dependent on ambient conditions and ranges from 30 minutes to a value several times larger. In the event of a long waiting time before applying the primer and the compound, the joints may require careful cleaning again.

The use of **TOK®-S Primer** is generally recommended.

Heating

The sealing compound must be melted in a double-walled heating kettle fitted with a stirrer, cover and an indirect heating element. The heating process must be carried out slowly (= carefully), with the first filling reaching approximately 1/3 of the total volume. Following this, more material can be added to the liquid compound.

The melting temperature must be maintained while stirring continuously. In so doing, ensure that the prescribed pouring/working temperature is not exceeded anywhere in the compound, as separation and/or disintegration of the sealing compound can otherwise occur. This can render the material unusable, meaning it may lose the properties it requires to function properly. If the compound cannot be worked on the same day, the kettle should be emptied completely. Once cooled, **TOK®-Melt N1** compound can be re-melted no more than twice.

Joint filling

Machines for hot pouring should be equipped with a feed pump. Normally, the joint fill area is filled mechanically in a single step. Depending on the filling cross-section, it is also possible to pour in two steps – although the surface of the first layer must not be soiled. Manual pouring is possible in exceptional cases if the structural components are difficult to access or if the work involves small jobs in the overall project.

Joints must be filled without air pockets. Projections must be scuffed off, taking care not to impair the bonding to the joint flanges. Excess material should be removed before the material hardens.

Ordering Information and Packaging

Product name	Pack size	Contents	Order number
TOK®-Melt N1	Siliconized boxes	25 kg/24 boxes per pallet	100 72 290
TOK®-S Primer	Metal bucket	10.0 l	102 02 824

Storage

Store the container upright and protect from direct sunlight. Do not stack the pallets on top of one another.

Ensure that opened pallets are kept dry.

Material Parameters TOK[®]-MELT N1/Joint Compound Type N1 Details as per EN 14188-1, Table 2

Property	Test procedure	Unit	Requirements/ limit value	Typical value
Working temperature	SNV 671913	°C/°F	Specify value	+170 (+338)
Softening point	EN 1427	°C/°F	≥ +85 (+185)	+102 ± 0.05 (+215.6 ± 32.09)
Density at 25 °C	EN 13880-1	g/cm ³	Specify value	1.15 ± 0.05
Cone penetration at 25 °C	EN 13880-2	0.1 mm	40-130	52-60
Ball penetration and elastic recovery	EN 13880-3	%	≥ 60	62-70
Thermal stability, cone penetration	EN 13880-4	0.1 mm	40-130	54
Thermal stability, elastic recovery	EN 13880-4	%	≥ 60	60-70
Flow length, initial	EN 13880-5	mm	≤ 2	< 1
Flow length after thermal load	EN 13880-5	mm	≤ 2	< 1
Compatibility with asphalt pavements	EN 13880-9	-	Passed	Passed
Adhesion and elasticity, -25 °C, ≥ 5 mm - Maximum tension - Residual tension after end of test	EN 13880-13	N/mm ²	Passed 1.0 ≤ 0.15	Passed 0.75 ≤ 0.15
Adhesion and elasticity after 14-day water storage at RT, -25 °C, ≥ 5 mm - Maximum tension - Residual tension after end of test	EN 13880-13	N/mm ²	Passed 1.0 0.15	Passed 1.0 0.15

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