

kN-SIL H10 PU

Polyurethane sealant

Kenal Polyurethane is a one component, gun-grade, Non-sag, moisture-cure polyurethane sealant designed to skin and cure rapidly. This high performance product is designed with outstanding UV resistance and long term durability.

USES

kN-sil Polyurethane sealant is designed to seal construction joints.
Waterproof rivet seams and roof rails
Perimeter joints around windows and doors
Sealing corner moldings, fabricated roof-lap seams, bumper assemblies and body-to-cab joints
In motor homes
Sealing door hinges, skylights and portholes
Air conditioning equipment, flashing and gutters

FEATURES

Paintable
Single component
Movement accommodation factor \pm 30% excellent adhesion
Highly resistant to sea water, diluted acids and alkalis.

ADVANTAGES

Accommodates 30% joint movement
Permanently flexible, excellent weather ability
Easy to gun – Easy to tool
Cures to a tough, durable, elastic consistency with excellent cut and tear resistance
Paintable – non-sticky after cure

APPLICATION INSTRUCTIONS

kN-Sil H10 PU meets or exceeds the requirements of the following specifications:
ASTM C 920 Type S, Grade NS, Class 25.

Note: Information on this datasheet is subject to change without notice and should not be used for writing specification. For additional information on specific applications, please contact Kenal Chemical Pvt.td.

TECHNICAL DATA	TEST METHOD	TYPICAL VALUE
Skin Over Time		>50 mins.
Tack Free Time	ASTM C-679-87	3 hours.
Shrinkage,%		<5
VOC, (g/L)	USEPA - 24	<45
Flow (sag or slump)	ASTM C-639-01	Non Sag
Hardness : Shore A	ASTM D-2240-97	30±3
Movement Capability, %	ASTM C-719	±30
Peel Strength (N), concrete	ASTM C-794-93	>30
Tensile Strength (N/mm ²)	ASTM D-412-98a	1.3
Elongation at break	ASTM D-412-98a	>300%
Effects of Accelerated Aging @ 300 hrs. UV exposure	ASTM C-793	No deterioration
Application Temperature (°C)		+5 to +40

PACKAGING

600ml sausage, 20 sausages per carton

COLORS

White, Off-white, Grey, and Black. For other colour please contact local Triton representative

EXPANSION JOINT DESIGN

kN-Si H10 PU may be used in any joint designed in accordance with accepted architectural/engineering practices. Joint width should be at least 4 times anticipated movement, and not less than (5mm).

While applied on an expansion joint the depth (D) of the sealant should be equal to the width (W) of the joints that are less than 10mm wide. For wider joints, width to depth ratio should be 2 : 1.

The maximum width of the joint on which kN-sil H10 PU can be applied is 25mm.

Meter per 600 ml

Joint Depth(mm)	Joint Width(mm)					
6	6	10	12	15	20	25
6	16.6					
8		7.5	6.2	5		
10		6	5	4	3	
2					2.5	1.9
15						1.6

JOINT BACKING

Closed cell polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint is insufficient for the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at time of sealant application

YIELD

The following formula is an approximate guideline to calculate foreseen yield for a standard 600ml sausage of kN-sil PU.

$$L = 600 / (W \times D)$$

Where: L = Length of sealant in metres obtained per cartridge.

D = Depth of the joint in mm

W = Width of the joint in mm

APPLICATION DETAILS

SUBSTRATE PREPARATION

Surfaces must be sound, clean, and dry. All release agents, dust, loose mortar, laitance, paints, or other loose particles must be removed. This can be accomplished with a thorough wire brushing, sanding, or solvent washing, depending on the contamination. Triton recommends that surface temperatures be below 40°C at the time the sealant is applied.

PRIMING

kN-sil H10 PU typically adheres to common construction substrates without primers; however, due to the variability of substrate finishes available, where deemed necessary, use Tritosil Prime P. A mockup or field adhesion test can be performed on the actual materials being used on the job to verify the need for a primer.

APPLICATION

kN-sil H10 PU is easy to apply with conventional caulking equipment. Ensure that the backer rod is friction fitted properly. Mask the sides of the joint with tape prior to filling for a cleaner finish. Fill the joint completely with a proper width-to-depth ratio and tool to ensure intimate contact of sealant with joint walls. Dry tooling is always preferred, although xylene can be used in limited amounts to slick the spatula if needed following the initial dry tooling.

CLEAN UP

Excess sealant and smears adjacent to the joint interface can be carefully removed with xylene or mineral spirits before the sealant cures. Any utensils used for tooling can also be cleaned with xylene or mineral spirits.

LIMITATIONS

- Do not apply over damp or contaminated surfaces.
- Do not use Tritosil H10 PU as a structural (load transferring) sealant

STORAGE AND SHELF LIFE

kN-sil H10 PU has a shelf life of 6 months when stored in tightly closed original casks, in a dry place at a temperature between +5°C and +25°C

CURING TIME

kN-sil H10 PU generally cures at a rate of 2mm per day at 25°C and 50% relative humidity. kN-sil H10 PU will skin in 45-55 minutes and be tack-free in 3 hours. Lower temperatures and humidity will extend curing time.

FOR OPTIMUM PERFORMANCE

- In cool or cold weather, store container at room temperature for at least 24 hours before using.
- kN-sil H10 PU can adhere to other residual sealants in restoration applications. For best results always clean the joint as advised in the Surface Preparation section of this data guide. A product field adhesion test for kN-sil PU within the specific application is always recommended to confirm adhesion and suitability of the application.
- When using kN-sil H10 PU in a traffic-bearing horizontal joint, use a firmer joint backing, such as neoprene rod or polyethylene foam block, and recess the surface of sealant (3mm - 6mm).
- Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant however, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.
- Proper application is the responsibility of the user. Field visits by Triton personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH AND SAFETY

Use only with adequate ventilation. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area. Always utilize the accompanying MSDS for information on Personal Protective Equipment (PPE) and health Hazards.

