



U-Seal 907

One-part polyurethane low modulus construction sealant
Certified according to EN 15651/1; EN 15651/4; ASTM C920
LEED compliant

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Description

U-Seal 907 is a one-component, gun-grade, non-sag polyurethane low modulus construction sealant. It cures under the influence of atmospheric moisture to form a permanently elastic sealant with excellent adhesive properties and resistance to ageing and weathering.

Certified according to:

EN 15651/1 TYPE F INT/EXT CC ; EN 15651/4 TYPE PW INT/EXT CC
ASTM C920 Type S Grade NS Class 50 Use T₂, M, A, O, L.

Compliant to:

ISO 11600 Type F Class 25 sub-class LM;
LEED iEQc 4.1 ; SCAQMD Rule 1168 ; BAAQMD Reg 8 Rule 51

Areas of Application

- Sealing expansion and construction joints in vertical and horizontal applications
- Joints in precast elements
- External walling and cladding joints.
- Weatherproofing of joints between brickwork, block-work, masonry, wood, concrete, metal frames.
- Joints in walls, floors, balconies, around window or door frames
- Joints in water channels and suitable for hydraulic general sealing with contact with water.
- Bridge and balcony parapets.
- Retaining walls
- Metal roof and gutter sealing

Advantages

- Permanently elastic over a wide range of temperatures; accommodates joint movement of $\pm 50\%$
- Non-sag consistency with short cut-off string
- Non-sticky / does not pick up dirt
- Easy to gun with excellent tooling consistency
- Good adhesion on all typical construction materials.
- Non-staining on concrete and porous materials
- Good resistance to ageing, weathering and immersion in cleansing agents, sea water, lime water and dilute caustic solutions
- Over-paintable with many water and solvent based paints (preliminary tests recommended)





Technical data

Appearance	Non-sag thixotropic paste
Colour	Grey, white, black. Other on request
Chemical nature	Polyurethane
Curing Mechanism	Moisture-curing
Curing through volume [mm] (NPT Method 07) (24h - 23°C and 50% RH)	ca. 2
Shore A hardness [N/mm²] (DIN 53505)	ca. 30
Density [g/cm³] (NPT method 06) (23°C and 50% RH)	ca. 1,33
Tack-free time [min] (NPT Method 17) (23°C and 50% RH)	ca. 120
Elastic modulus at 100% [N/mm²] (ISO 37 DIN 53504)	ca. 0,4
Tensile strength [N/mm²] (ISO 37 DIN 53504)	ca. 1.5
Elongation [%] (ISO 37 DIN 53504)	ca. 800
Joint Movement Capability (ASTM C920)	±50 % of joint width
Joint Movement Capability (EN 15651/1; ISO 11600)	±25 % of joint width
Application temperature [°C]	+5/+40
Temperature Resistance [°C]	-40/+90, with brief points at +120





Application

Surface preparation

Surfaces must be clean, dry, free of water, oil, grease or rust and of sound quality. Remove all loose particles or residues with a jet of compressed air, sandpaper or hard brush. Glass, metal and other non-porous surfaces must be free of any coatings and wiped clean with solvent. Pre-cast panels using form-release agents other than polyethylene film must be sandblasted or mechanically abraded and dust free.

U-SEAL 907 has very good adhesion properties without the use of primer on most common building materials. Consequently, the use of the primer is not necessary if the support to be sealed is properly prepared and consolidated. However, varieties of brick, natural stone, plastics, paints, coatings and other treatments of surfaces often presents a difficult surface to which to adhere. Due to the number of unpredictable natures of these substrates, a preliminary test is recommended. If necessary, apply a coating of primer on the joint walls (U-Primer 110 for porous surfaces).

Sealing

Recommended application temperatures: 15°-25°C. For easier use or cold weather application we recommend the material to be stored at approximately 25°C prior to use. In order to guarantee free movement of sealant in joints, it is imperative that the sealant does not adhere to the bottom of the joint, therefore for correct joint making a closed-cell polyethylene bead (joint backing rod) is to be placed at the proper depth.

If necessary, apply appropriate primer to joint sides and observe waiting time to avoid that trapped solvent, in condition of rising temperature, can blow bubbles in the uncured sealant. For best performance, sealant should be gunned into joint when the joint slot is at mid-point of its designed expansion and contraction. Firmly extrude sealant into the joint making sure that it is in full contact with the sides of the joint and with the backing rod at the bottom. Keep the nozzle in the sealant, continue on with a steady flow of sealant preceding the nozzle to avoid air entrapment. Avoid overlapping of sealant to eliminate entrapment of air.

For the successful sealing of joints it is essential that the following guidelines on joint configuration are observed:

For joints up to 12 mm wide, width to depth ratio = 1 : 1

For joints over 12 mm wide, width to depth ratio = 2 : 1

Finishing indications and limitations

Sealant should be tooled to a smooth finish ensuring a full contact to the sides and back up material into the joint, this will also contribute in breaking the air bubbles which may be formed inside the sealant. Masking tape should be used where sharp exact joint lines or exceptionally neat lines are required. Remove the tape whilst the sealant is still soft.



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U-Seal 907 may be painted. However some coatings may crack if movement occurs, preliminary tests recommended. Avoid exposure to high levels of chlorine (avoid to seal joints in chlorinated swimming pools). Do not cure in the presence of curing silicone sealants. Avoid contact with alcohol and other solvent cleaners during cure.

Do not apply when moisture or vapour transmission condition exists from the substrate as this can cause bubbling within the sealant. White colour tends to yellow slightly when exposed to ultraviolet rays. The ultimate performance of U-Seal 907 depends on good joint design and proper application with joint surfaces properly prepared.

Cleaning of equipment

Clean tools with acetone or alcohol immediately after use. Cured material can only be removed mechanically.

Personal protective measures

Keep out of reach of children. If skin contact occurs, remove immediately and wash with soap and water.

Packaging

Alu- cartridge 310 mL:	12 cartridges per box
Alu-PE bags 600 mL:	20 bags per box

Storage

U-Seal 907 can be stored for 12 months in its original packaging (unopened container) at 10°- 25°C in a cool, dry place. The storage temperature should not exceed 25°C for extended periods of time. Keep away from wet areas, direct sunlight and heat sources.

General Information

The information contained in this technical data sheet is to the best of our knowledge correct, being based on our knowledge and experience to date and cannot be used as a guarantee, due to the various different materials present on the market and the fact that the application conditions are not under our direct control and supervision. NPT Srl, however, guarantees constant product quality. NPT Srl, has the right to modify or up-date this technical data sheet according to requirements. Customers are kindly requested to verify that they are in possession of the latest version.

ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET BEFORE USING THE PRODUCT.

