



ST7-101

SPRAY TEC

SPRAY ADHESIVE FOR FULL-SURFACE BONDING

TECHNICAL DOSSIER

VERSION: 16/10/2024



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ST7-101

SPRAYTEC

SprayTec is an MS hybrid polymer spray adhesive for full-surface bonding. As with any MS polymer, SprayTec needs moisture to cure, but humidity is sufficient in this case.

SprayTec also contains no solvents, isocyanates or phthalates. This also means that no suspect harmful substances are present. To get the spray adhesive out of the can, a 'green' propellant is used that hardly contributes to ozone depletion.



BENEFITS

1. Bonds almost anything ... If it can be done with Tec7, then also with SprayTec!
2. Repositionable: materials can be moved temporarily
3. Powerful: 15 kg/cm²
4. One-sided application
5. Applicable on slightly damp substrates
6. Better for health and environment (no harmful ingredients or solvents)
7. Safe on all materials (polystyrene, natural stone, etc.)
8. The canister may be used several times

APPLICATIONS

With SprayTec you bond almost all materials. You use a thin adhesive layer of +/- 0.1 mm to +/- 0.5 mm thickness. This makes SprayTec extremely suitable for full-surface bonding on smooth substrates such as sheet material, plaster or levelled floors.

SOME EXAMPLES

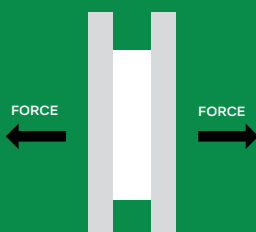
- **ROOF:** underlayment, insulation boards, EPDM, PVC, ...
- **FLOOR:** underlayment, vinyl, carpet tiles, laminate, linoleum, fitted carpet, cork, ...
- **BUILDING MATERIAL:** waterproofing membrane, ...
- **PLATE MATERIALS (SANDWICH):** HPL, veneer, MDF, foam rubber, plywood, plasterboard, PVC, acrylic, ...
- **INSULATION MATERIAL:** polystyrene, PIR, PUR, XPS/EPS, cellular glass, compressed wood fibre, ...
- **METAL:** steel, stainless steel, zinc, aluminium, Corten steel, brass, ...

CAUTION: some plastics (PP, PE), powder coatings and exotic types of wood are very difficult to bond. Some types of bitumen contain many plasticisers that can reduce the bonding force. If in doubt, test first!

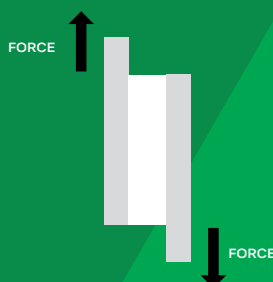
ACTING FORCES

SprayTec is a spray adhesive for full-surface bonding. Like any construction adhesive, it is subject to forces. Below is an overview of these forces. SprayTec is highly resistant to tensile and shear forces, but less resistant to peel forces.

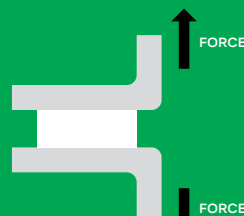
TENSILE FORCE



SHEAR FORCE



PEEL FORCE



TECHNICAL DATA

TECHNICAL SPECIFICATIONS

- MS hybrid polymer
- Density: 1.38 g/ml
- Curing by (air) humidity
- Colour: white
- Skin formation (23°C, 50% RH): 75 minutes

- **Tack build-up**

Above 18°C	45 to 60 minutes
Between 10°C and 18°C	60 to 90 minutes
Between 5°C and 10°C	More than 3 hours

- **Curing**

Above 18°C	12 to 24 hours
Between 10°C and 18°C	± 2 days
Between 5°C and 10°C	± 3 days

Fully cured after ± 7 days

- Processing temperature: between +5°C and +40°C
- Temperature resistance: between -40°C and +90°C (peak of max. 30 minutes: +150°C)
- Adhesive thickness: 0.1 to 0.5 mm
- Paintable (with most paints and lacquers)
- Shelf life: 18 months after production
- Storage: cool, dry and upright

CHARACTERISTICS

- Safe on all materials
- No pressing or clamping required
- Fast strength build-up
- Bacteria and mould resistant
- Solvent-free, 100% solids
- Layer thickness from 0.1 to 0.5 mm
- Bonding of large surfaces

GENERAL PROCEDURE

STEP 1

PREPARATION

- The temperature of the substrate must be between +5°C and +40°C. SprayTec is best stored at room temperature.
- Make the substrate free of dust and grease. Remove visible drops or condensation. The substrate must be dry to the touch.
- Protect the surrounding area against overspray.



STEP 2

MOUNTING THE CANISTER

- Hold the canister upside down and shake 20x vigorously.
- Hold the canister upright and mount the gun on the canister.
- Slide the nozzle onto the gun.
- Shake regularly while spraying.

STEP 3

APPLICATION & WAITING TIME*

- Spray the desired layer thickness, depending on the application. The layer thickness can be observed through the effervescence effect.

THICKNESS	<100 microns (<0,1 mm) Adhesive layer too thin, low bonding strength	100-200 microns (0,1-0,2 mm)	200-300 microns (0,2-0,3 mm)	300-500 microns (0,3-0,5 mm)	>500 microns (>0,5 mm) Adhesive layer too thick, lower bonding strength
APPLICATION	/	Flexible materials	>80% of applications, roof membrane, insulation material, EPDM, flooring	Partial bonding, rougher materials, screed, artificial turf	/

Table 1: Layer thicknesses and applications

* Always carefully review the specific points of attention for your application before getting started. You will find these later in this document. If your application is not listed, follow the general procedure or contact the Novatech helpdesk.

- Let SprayTec evaporate after spraying to allow the propellant (effervescence effect) to disappear. Cold temperatures and thicker adhesive layers require a longer evaporation time. (see table 2)

SURFACE TEMPERATURE	100-200 µ	200-300 µ	300-500 µ	>500 µ
>25°C	15 sec	End of effervescence + 15 sec	End of effervescence + 1 min	End of effervescence + 2 min
18-25°C	30 sec	End of effervescence + 30 sec	End of effervescence + 2 min	End of effervescence + 5 min
10-18°C	1 min	End of effervescence + 1 min	End of effervescence + 5 min	End of effervescence + 10 min
5-10°C	2 min	End of effervescence + 2 min	End of effervescence + 10 min	End of effervescence + 15 min

Table 2: Evaporation times in relation to layer thickness and surface temperature



- The open time is 60 min at 23°C.
- Bring the pieces together before skin formation and press for optimal adhesive contact. Clamping or pressing is not necessary.
- When spraying out, the initial tack is limited. You can increase it by leaving the SprayTec uncovered after spraying. The speed depends on the temperature. (see table 3)
- For vertical bonding, you can determine the tack by placing a small wood block against the adhesive layer. If it sticks without sliding off, the tack build-up of the adhesive is sufficient to start gluing.
- Curing (95%) takes 12 hours (23°C) to 3 days (5°C).

SURFACE TEMPERATURE	TACK BUILD-UP	MANIPULABLE	CURING (95%)
>25°C	< 45 minutes	1 hour	12 hours
18-25°C	45-60 minutes	2-3 hours	12-24 hours
10-18°C	60-90 minutes	6 hours	2 days
5-10°C	≥ 3 hours	24 hours	3 days

Table 3: Tack build-up times and curing in relation to surface temperature

STEP
4

CLEANING & FINISHING

- Remove uncured SprayTec with Spray & PUR Cleaner.
- Clean the canister with Spray & PUR Cleaner.
- The canister not fully used? Leave it mounted on the gun and close the dosing knob. The product remains usable for another 4 to 6 weeks.

Caution:

When disassembling a half-full canister from the gun and reassembling it shortly afterwards, the closing mechanism of the spray canister may get stuck/jammed causing the canister to empty during subsequent disassembly.



APPLICATIONS & POINTS OF ATTENTION

EPDM ROOF

WATERPROOFING MEMBRANE

ARTIFICIAL GRASS

SANDWICHING OF SHEET MATERIAL

LARGE PANELS

EPDM ROOF



STEP 1

PREPARATION:

See general procedure on page 5

STEP 2

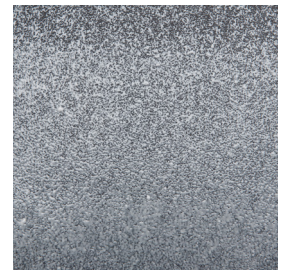
ASSEMBLE SPRAY:

See general procedure on page 5

STEP 3

APPLY & WAIT TIME:

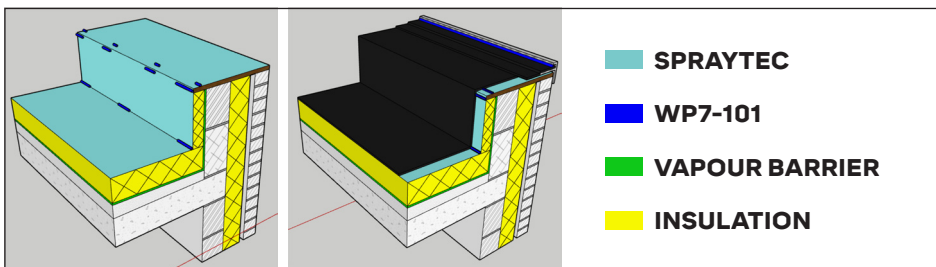
See general procedure on page 5 & **specific points of attention**



Layer thickness to be used: **200-300 microns (0,2-0,3 mm)**

SPECIFIC POINTS OF ATTENTION

- As shown in the image below, the entire roof curb can be bonded with SprayTec. For the roof curb, 3 lines of WP7-101 Universal Roofproof should be used. For other building details, work according to Buildwise's building regulations. For specific questions, contact the Novatech helpdesk.



- Ensure that the **adhesive layer** is applied thick enough. This can be determined by the **effervescence effect**. (see table 1 on page 5)
- Depending on the layer thickness, **evaporation** may take longer than 1 minute. You can determine this when the **effervescence stops**.
- During installation, the EPDM can be **repositioned** to smooth blisters and folds. If necessary, you can also use a broom or pressure roller.
- The EPDM must not be stretched excessively as it will creep back to its original position.
- Be careful when walking on the EPDM during the first 60 minutes after applying SprayTec.

STEP 4

CLEANING & FINISHING:

See general procedure on page 6

WATERPROOFING MEMBRANE



STEP 1

PREPARATION:

See general procedure on page 5

STEP 2

ASSEMBLE SPRAY:

See general procedure on page 5

STEP 3

APPLY & WAIT TIME:

See general procedure on page 5 & **specific points of attention**



Layer thickness to be used: **200 - 400 microns (0,2-0,4 mm)**

SPECIFIC POINTS OF ATTENTION

- Make sure the **adhesive layer** is applied thick enough. This can be determined by the **effervescence effect**. (see table 1 on page 5)
- Depending on the layer thickness, **evaporation** may take longer than 1 minute. You can determine this when the **effervescence effect** stops.
- As soon as the effervescence has stopped, the SprayTec can be misted with water.
- Allow the adhesive to gain sufficient strength. (see Table 3 on page 6)
- Just before bonding, **spray water on the adhesive side of the waterproofing membrane** to prevent curling up.

STEP 4

CLEANING & FINISHING:

See general procedure on page 6

ARTIFICIAL GRASS



STEP 1

PREPARATION:

See general procedure on page 5

STEP 2

ASSEMBLE THE SPRAY CAN:

See general procedure on page 5

STEP 3

APPLY & WAIT TIME:

See general procedure on page 5 & **specific points of attention**

SPECIFIC POINTS OF ATTENTION

- Apply thicker adhesive rails to eliminate unevenness (3 to 4 mm). Here, the effervescence effect is important. We will only bond the edges with partial bonding. The effervescence effect will distribute the glue nicely.
- The back edges of the artificial grass are mainly made of latex and rubber. SprayTec has good adhesion to these.

STEP 4

CLEANING & FINISHING:

See general procedure on page 6



Layer thickness to be used: **Partial bonding**

SANDWICHING OF SHEET MATERIAL



STEP 1

PREPARATION:

See general procedure on page 5

STEP 2

MOUNT THE SPRAY CAN:

See general procedure on page 5

STEP 3

APPLY & WAIT TIME:

See general procedure on page 5 & **specific points of attention**



Layer thickness to be used: **Partial bonding**

SPECIFIC POINTS OF ATTENTION

- When sandwiching sheet materials (flat sheet material is never 100% flat), you should work with thickly applied adhesive rails (partial bonding) for the best bonding strength. The boards are applied immediately after the adhesive has been applied. The effervescence causes the adhesive to move between the panels for optimal adhesive distribution.

STEP 4

CLEANING & FINISHING:

See general procedure on page 6

LARGE PANELS

- Installing large wall panels with SprayTec is currently not recommended due to the internal forces of the panels.
- Excessive unevenness in the panel should be avoided.