ST7-101

# SPRAY TEC

MS POLYMER SPRAY ADHESIVE
FOR THIN BONDS

## TECHNICAL DOSSIER

VERSION: 26/02/2025

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# SPRAY**TEC**


**SprayTec is an MS hybrid polymer spray adhesive for thin 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 (hand dry)**
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

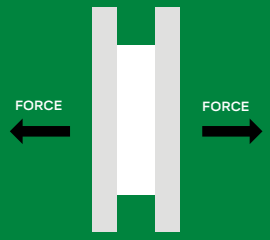
- **ROOF:** underlayment, insulation boards, EPDM, PVC, ...
- **FLOOR:** underlayment, vinyl, carpet tiles, laminate, linoleum, fitted carpet, cork, ...
- **BUILDING MATERIAL:** waterproofing membrane, ...
- **PLATE MATERIALS (SANDWICH):** HPL, veneer, MDF, foam rubber, plywood, plasterboard, PVC, acrylic, ...
- **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!

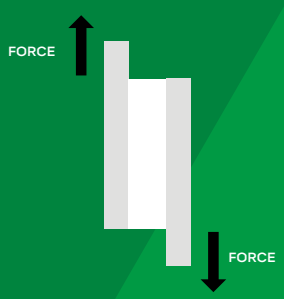
### ACTING FORCES

SprayTec is a spray adhesive for thin 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.

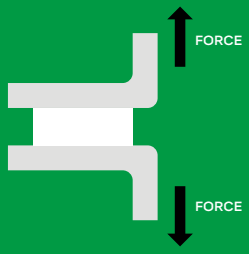
**TENSILE FORCE**




**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): 30 minutes**

- **Tack build-up**

| | |
|---|---|
| Above 23°C | < 10 minutes |
| Between 5°C and 23°C | 10 – 20 minutes |

- **Curing (95%)**

| | |
|---|---|
| Above 23°C | <12 hours |
| Between 5°C and 23°C | 12 – 24 hours |

*Fully cured after ± 7 days*

- **Processing temperature: between +5°C and +40°C**
- **Temperature resistance: between -40°C and +100°C (peak of max. 30 minutes: +150°C)**
- **Adhesive thickness: 0,2 - 1 mm**
- **Paintable (with most paints and lacquers)**
- **Shelf life: 18 months after production**
- **Storage: cool, dry and upright**
- **Safe on all materials**
- **No pressing or clamping required**

## CHARACTERISTICS

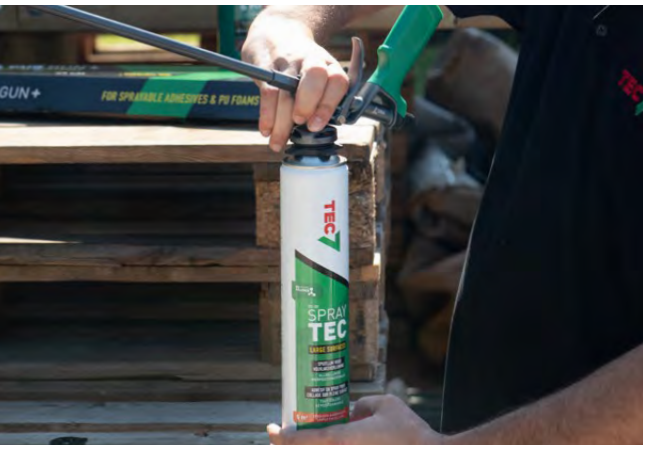
- **Fast strength build-up**
- **Bacteria and mould resistant**
- **Solvent-free, 100% solids**
- **Layer thickness from 0,2 - 1 mm**
- **Bonding of large surfaces**

# 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 | 100-500 µ |
|---|---|
| >25°C | 2 min |
| 5-25°C | 3 min |

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

- The open time is 30 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 24 hours (5°C).

| SURFACE TEMPERATURE | TACK BUILD-UP | MANIPULABLE | CURING (95%) |
|---|---|---|---|
| >25°C | < 10 minutes | 1 hour | 12 hours |
| 18-25°C | 10-20 minutes | 1-4 hours | 12-24 hours |

*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

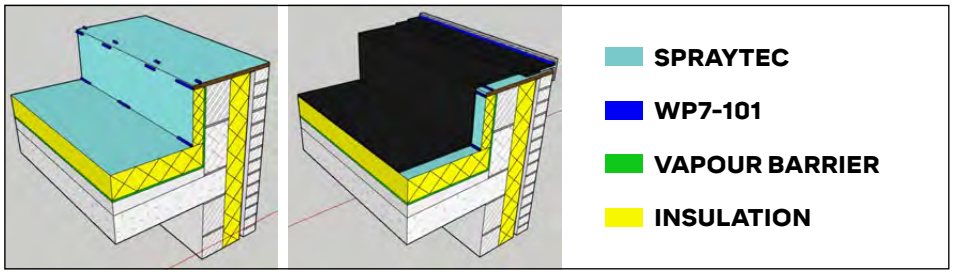
**STEP 2** **ASSEMBLE SPRAY:**
See general procedure on page 5

**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**

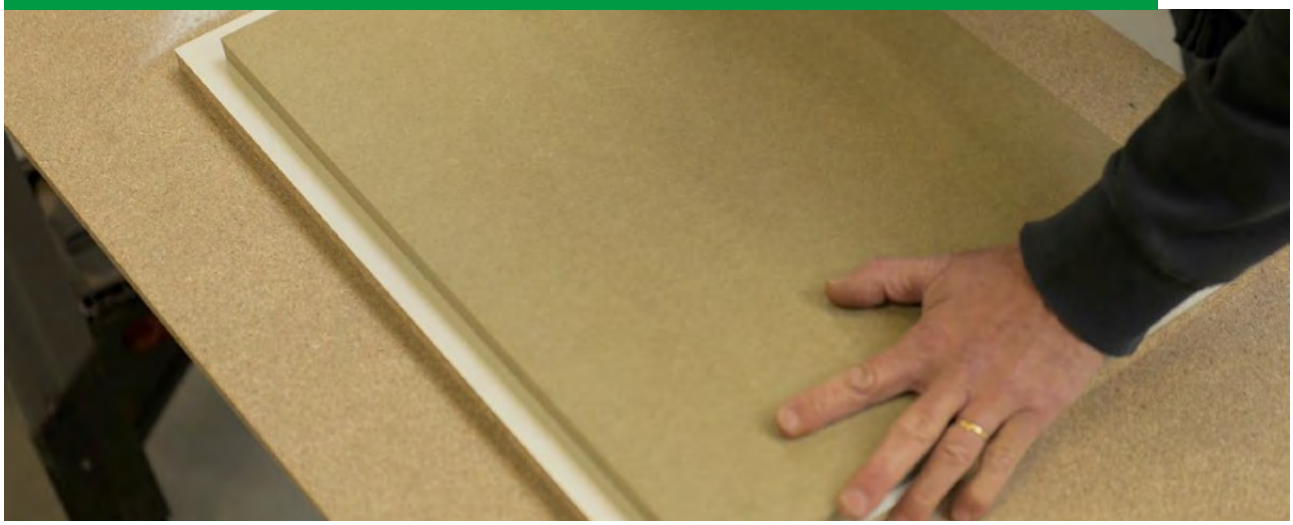
Layer thickness to be used: **Partial bonding**

## 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

# 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.