

**Single Component Polyurethane Swellable Sealant.****Gun Grade & Moisture Curing**

**Description :** **PUR Flex Swellable** is a low modulus, one component moisture-curing polyurethane adhesive sealant with permanent elasticity. It is manufactured strictly under the system of Global Requirement.

**Uses** As an elastic adhesive for:

- **Assembling metal framed buildings**
- **Cover plates and covings**
- **Light-weight construction materials**
- **Acoustic ceiling tiles**
- **Wood, metal or plastic window and Door frames**

**Advantages:**

- component, ready to use
- Solvent free
- Fast curing properties
- Floor can be sanded after 12 hours (full surface bonding, + 23°C/50% r.h. up to 1 mm adhesive thickness)
- Excellent workability, very easy to extrude
- Good initial tack
- Odorless
- Elastic, footfall sound-dampening adhesive
- Suitable for most common types of wood floors
- Especially suitable for problematic woods including beech, maple and bamboo
- Suitable for bonding wood floor directly onto old ceramic tiles
- Reduces stress to the substrate : the elastic adhesive reduces stress transfer between the wood floor and the substrate
- Suitable for use with sub floor heating
- Compensates for some substrate unevenness
- Adhesive can be sanded

**Approval/Standards**

- EMICODE EC1"very low emission".
- GISCODE PU 10"solvent free"



**Properties**

**PUR Flex Swellable**

<b>Solid Content</b>	85
<b>Density g/cm<sup>3</sup></b>	1.3±0.1
<b>Sagging degree (50±2)°C</b>	2mm
<b>Surface Drying Time</b>	24 Mpa
<b>7d Tensile Bond Strength</b>	≥0.2
<b>Flexible at Low Temperature (-20±2)°C, 2h</b>	No Crack
<b>Tensile Property</b>	
- <b>Tensile Strength</b>	0.5Mpa
- <b>Elongation at Break</b>	400%
<b>Volume Expansion Ratio</b>	≥400%
<b>Retention Rate of Volume Expansion Ratio in Long-Term Water Immersion, (28d)</b>	90%
<b>Thickness of Solid (48h)</b>	2 mm
<b>VOC</b>	200g/l
<b>Benzene</b>	0.1g/kg
<b>Toluene/Xylene</b>	50g/kg
<b>Free Toluene Diisocyanate (TDL)</b>	5g/kg
<b>Retention Rate of Volume Expansion - 5%Ca(OH)<sup>2</sup> After Solvent Soaking a, (3d)%≥</b>	90
<b>- 5%NaCl</b>	90

**Packaging** 300ml sausages (40 sausages per box).  
600ml sausages (20 sausages per box)

**Application Fields**

**For Full Surface bonding:**

Solid and engineered wood floor-(strips, longstrips, planks, panels, boards), mosaic parquet, lam parquet, wood paving(residential) as well as chip boards can all be fully bonded

**For Beaded Application :**

Solid wood boards, 3-ply engineered wood as well as chip boards can be bonded

Elastic Bonding of skirting boards / baseboards and door thresholds etc.

**Application Details:  
Consumption:****Full Surface Bonding :**

700 – 900 g/m<sup>2</sup> with notched trowel B3 ( acc. to IVK guidelines) or 3/16" 1/8" 1/8"(engineered strips / planks, mosaic parquet etc.).

800 – 1000 g/m<sup>2</sup> with notched trowel B11 (acc .to IVK guidelines),AP 48 or 3/16" 3/16" 3/16" (solid wood, engineered planks / panels, industrial parquet, wood paving (residential), chipboards etc.).

For bonding of long or wide boards or on uneven substrates it may be necessary to use a notched trowel with bigger notches (to prevent hollow sections).

**Beaded Application:**

~44 ml per running meter = 250 -500 g/m<sup>2</sup>, dependent on bead spacing (solid wood boards, 3-ply engineered wood, chipboards).

For substrates primed with Epo Bond Primer, the consumption of **PUR Flex Swellable** is reduced.

**Substrate Quality :**

Clean and dry, homogeneous, even, free from grease, dust and loose particles. Paint, laitance and other poorly adhering particles must be removed. Standard construction rules must be observed.

**Substrate Preparation :****Concrete / cement screed:**

Must be ground and thoroughly cleaned with industrial vacuum cleaner shortly before bonding starts.

**Broadcast mastic asphalt:**

Must be primed with **Epo Bond Primer**. Instructions for use, see Technical Data Sheet for **Epo Bond Primer**.

**Glazed ceramic and ceramic tiles :**

Degrease, clean with Cleaner or grind the tile surfaces and vacuum thoroughly.

**Wood- / gypsum boards (e.g. chipboards, plywood):**

Glue / screw the boards to the substructure. They must be fixed to the substrate. For floating sub floors, please contact our Technical Service Department.

**Other Substrates :**

Please contact our Technical Service Department for advice and assistance.

**PUR Flex Swellable** can be used without priming on cementitious floors, anhydrite floors, chipboards, concrete and ceramic tiles.

For broadcast mastic asphalt, cementitious floor with an excessive moisture content and for use old adhesive residues or on weak substrates use primer. For detailed instructions consult the Product Data Sheet of primer or contact our Technical Service Department.

**Application Conditions / Limits:****Substrate Temperature :**

During Laying and until **PUR Flex Swellable** has fully cured the substrate and ambient temperatures the standard construction rules are relevant.

**Ambient Temperature :**

Ambient temperature between +15°C and +35°C. For ambient temperatures the standard construction rules are relevant.

**Substrate Humidity :**

Permissible substrate moisture content :

2.5% CM for cement screed (ca.4% Tramex / Gravimetric Weight percent).

0.5% CM for anhydrite screed.

3-12% CM for magnesite flooring (dependent on proportion of organic components).

Permissible substrate moisture content for use with under floor heating :

1.8% CM for cement screed (ca. 3%tramex / Gravimetric weight percent).

0.3% CM for anhydrite screed.

3-12% CM for magnesite flooring (dependent on the proportion of organic components).

For moisture contents and the quality of substrates the guidelines of the wood floor manufacturer as well as standard construction rules must be observed.

**Relative Air Humidity :**

Between 40% and 70%

**Application Instructions:****Full Surface Bonding :**

**PUR Flex Swellable** is applied to the prepared substrate directly from the pail and uniformly distributed by notched trowel. Press the wood floor pieces firmly into the adhesive so that the underside is fully wetted. The pieces can then be joined together using a hammer and an impact block. Many types of wood floors have to be tapped from the top. A distance of 10 – 15 mm from the wall to the wood floor must be maintained.

**Beaded Application :**

After inserting the sausage into the gun, extrude a triangular shaped bead of adhesive approximately 10mm high and 8mm wide at 100 – 250 mm centres (dependent on wood floor type) on the prepared sub floor. Press the wood pieces firmly into the adhesive (at right angles to the adhesive beads). The elements can then be joined together using a hammer and an impact block. The required distance from the wall to the wood floor in the laying instructions from the wood floor manufacturer must be maintained. Fresh, uncured adhesive remaining on the wood floor surface must be removed immediately with a clean cloth.

Note :

The laying instructions of the wood floor manufacturer must be observed.

**Cleaning of Tools:**

Clean all tools and application equipment with Remover immediately after use. Hardened / cured material can only be removed mechanically.

**Limitations :**

**PUR Flex Swellable** should only be used by suitably experienced and trained contractors.

For better workability the adhesive temperature must be least + 15°C. For the correct curing of the adhesive sufficient ambient moisture is necessary.

For Beaded Application, Accurate tongued and grooved floors, the following limitations apply:

Minimum wood size	Length over 3 adhesive beads Width > 50mm Thickness < 28 mm
Maximum wood size	Thickness < 28mm

For use with chemically pre-treated types of wood floors (e.g. with ammonia, wood stain, timber preservative) and wood with high oil content **PUR Flex Swellable** is only to be used with written agreement from our Technical Service Department.

Do not use on PE, PP, TEFLON, and certain plasticized synthetic materials (carry out pre-trials or contact our Technical Service Department).

Some primers can negatively influence the adhesion of **PUR Flex Swellable** (pre trials recommended).

**Notes :**

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

**Local Restrictions**

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

**Storage and Shelf Life:**

9 months from date of production if stored in undamaged, original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10 °C and +25°C.

**Caution:**

To avoid allergic reactions, we recommend the use of protective gloves. Change soiled work clothes and wash hands before breaks and after finishing work.  
Local regulations as well as health and safety advice on packaging labels must be observed.

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