



# SOUDAL

Expert in sealants, foams and adhesives

## TIMBER FLOORING ADHESIVE SYSTEMS

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**atfa**®

Australasian timber flooring association

*Local professionals, world-class standards*

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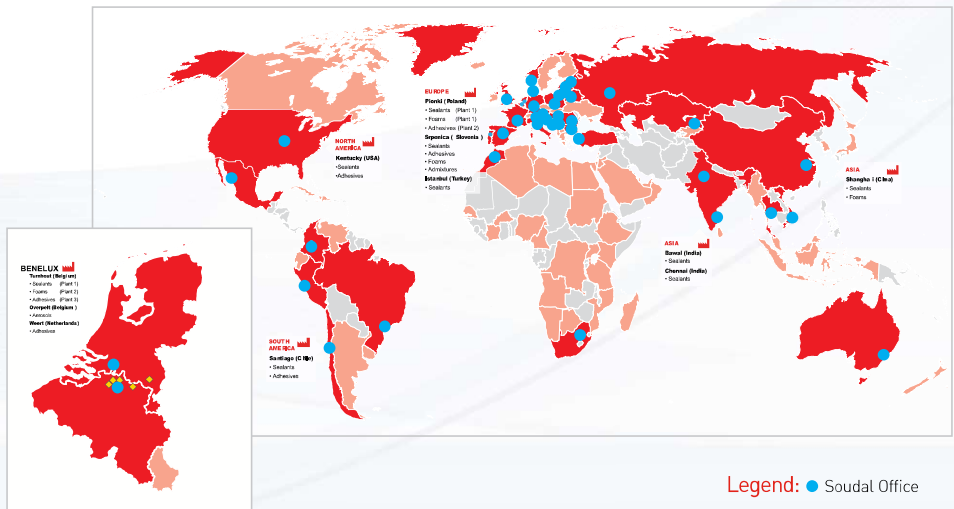
# BUILD THE FUTURE

Soudal is the largest independent European manufacturer of PU foams, sealants, adhesives and building chemicals for the construction, retail and industrial markets. The company, established in 1966 by Mr. Vic Swerts, is 100% family owned. Soudal offers innovative products, providing solutions to most bonding, sealing, waterproofing and jointing applications.

Continued investments in R&D, a long-term vision for innovation and adaptations to local market requirements have resulted in Soudal's excellent performance, for which it was named Belgium's Company of the Year in 2011.

## Soudal Worldwide

Soudal operates on a fully global basis, with over 54 subsidiaries, sales into over 130 countries and a head-count of more than 2,700 employees. In 2017, the estimated consolidated turnover will be approximately EUR 750M.



## The New Standard in Timber Flooring Adhesives

**World's strongest flexible flooring adhesive with the  
Lowest EC1 Plus Emission Rating**



Soudal's ongoing investment in Research and Development has resulted in a continuously innovative range of products, which exceeded the market requirement offering professional timber flooring adhesive quality and performance.

In 2011 Soudal opened a new, state of the art Research & Development Centre. The area of improvement in performance on timber flooring adhesives were centred on end strength, open time, strength build-up and VOC emission. This resulted in the new "Plus" range of our hybrid timber flooring adhesives, **SMX®-30 Plus** and **SMX®-20 Plus**, which both achieve the lowest possible emission values of the increasingly stringent EUROPEAN regulations, EC1 plus and therefore meet the increasing demand for ecological products and improved indoor air quality.



### The First Timber Flooring Adhesive Tested for Its Moisture Barrier Properties by CSIRO

The Australian market was used to polyurethane adhesives that require a moisture barrier to be applied to the concrete sub-floor to control the moisture vapour transmission to protect the adhesive and timber floor system.



In November 2012, we approached the CSIRO laboratories in Melbourne and asked them to test **SMX®-30 Plus** to prove its suitability as a moisture barrier.

The CSIRO tested **SMX®-30 Plus** with Merbau Hardwood and Tasmanian Oak both on a dry concrete slab and a concrete slab with moisture content of 11.5%. **SMX®-30 Plus** met the requirements, was passed by CSIRO for its use as a moisture barrier and adhesive. For more details see full report.

**CSIRO**  
**TEST REPORT**  
**6452.2 & 3**

## SMX® Technology

After more than 20 years of formulating, manufacturing and supplying Hybrid Polymer adhesives, sealants and foams around the world. Soudal's expert R&D team, engineers and application technicians made groundbreaking discoveries and **SMX® Technology (Soudal Modified Xtensions)** was born. abilities, increased life cycle and non-staining on skin and surfaces.



**SMX® Technology** is chemical engineering at polymer level aimed at exceeding the demand from the professional installer to the occasional DIY'er. Some of the advantages of **SMX® Technology** are; no isocyanates, no solvents, lower VOC levels, minimal odour, very high end strength, very fast strength build up, improved elastic abilities, increased life cycle and non-staining on skin and surfaces.

## A **Plus** for the Installer and the Environment

**SMX®-30 Plus** and **SMX®-20 Plus** have been tested to meet European Norm for flexible adhesive, EN14923 (what is this). In addition they very easy and safe to apply and their VOC content is among the lowest in the market, allowing them to achieved the EC1 Plus Certificate. In short, these adhesives set the standard to which flexible adhesive are measured.



When choosing a timber flooring adhesive, the air quality in the room where the floor is installed is becoming very important. Soudal has taken this into consideration in its research and development and has been one of the pioneers in meeting the EC1 Plus certification requirements.

### GEV EMICODE EC1 Plus

- **GEV** is a German organization that regulates the control of emission of VOC in materials in the construction industry.
- **VOC** (Volatile Organic Compound) are organic chemicals that have a high vapour pressure at normal temperature conditions. VOC can have a negative impact on health and well-being, depending on the types of VOC used and their concentration in the environment.
- **EMICODE** classification is based on the total measured VOC, the class for low emission values is EC1 Plus (lowest concentration), EC1, and EC2.



# Timber Flooring Adhesives



**SMX®-30 Plus**

**SMX®-20 Plus**


## Characteristics

Chemical curing	✓	✓
Open time (21°C and 50% RH)	40 minutes	45 - 50 minutes
Adjustability time (21°C and 50% RH)	10 - 15 minutes	25 - 30 minutes
Walked on after	2 hours	8 hours
Timber can be sanded after	12 hours	24 hours
Shear strength	> 2 N/mm <sup>2</sup>	> 2 N/mm <sup>2</sup>
VOC content	20 g/L	20 g/L
Does not contain solvents	✓	✓
Does not contain isocyanate	✓	✓
Does not contain water	✓	✓
Acoustic properties	✓	✓
Ready to use	✓	✓

## Timber Flooring

Solid tongue & groove	✓	✓
Parquetry	✓	✓
Engineered flooring	✓	✓
Laminate	✓	✓
Bamboo	✓	✓

## Subfloor

Concrete slab	✓	✓
Self levelling compound	✓	✓
Plywood	✓	✓
Particle board	✓	✓
Existing tile	✓	✓
Existing timber flooring	✓	✓
Acoustic mat	✓	✓
Tested on & approved for 	✓	✓
Floors w/ underflooring heating	✓	✓
Best for very wide boards (up to 200mm)	✓	✓
Best for most demanding jobs	✓	✓





## The strongest flexible adhesive available



**SMX®-30 Plus** is a 2:1 flexible adhesive and moisture barrier that is solvent and water-free based on **SMX®** Technology. Suitable for bonding many types of timber floors onto suitable indoor substrates. Once fully cured, an elastic and non-shrinking adhesive layer is formed, which is resistant to moisture and heat.

**SMX®-30 Plus** does not contain water or solvents, minimising the risk of deforming the timber to a minimum. Suitable for subfloors with a residual moisture content up to 6% without the use of a moisture barrier due to the unique sealing capabilities.



### COVERAGE

18 kg = 18 - 20 m<sup>2</sup>  
600 mL = 1 m<sup>2</sup>

Colour	Item code	Size	Bar code
 light oak	120626	18 kg [3 x 6kg foil bag]	5411183081109
 light oak	120625	600 mL	5411183095878



**SMX®-20 Plus** is a flexible adhesive based on **SMX®** Technology. Suitable for bonding many types of timber floors onto indoor substrates. It contains no water or solvent - minimising the risk of deforming the timber floor to a minimum. Once fully cured, it forms an elastic and non-shrinkable adhesive layer, which is resistant to moisture and heat.

**SMX®-20 Plus** has an excellent adhesion to most common substrate used in construction industry.



## COVERAGE

18 kg	= 18 - 20 m <sup>2</sup>
16 kg	= 16 - 17m <sup>2</sup>
600 mL	= 1 m <sup>2</sup>

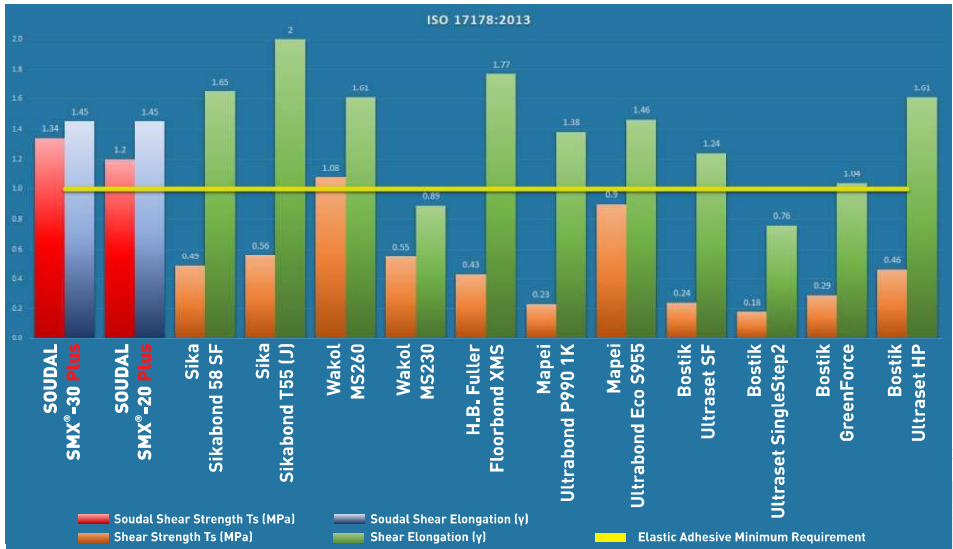
Colour	Item code	Size	Bar code
light brown	132271	18 kg (3 x 6kg foil bag)	5411183134027
light brown	132261	16 kg	5411183143777
light brown	130243	600 mL	5411183134010



# Which Timber Flooring Adhesive Available Meets International Standards?

The International Standard that timber flooring adhesives are required to meet, is **ISO17178: 2013**. This standard has three main categories and the most important category is elasticity. This category has minimum performance characteristics, these are:

- Elastic adhesive - adhesive which shows a shear strength between 1.0 MPa and 2.0 MPa and a shear elongation of 1.0 or more.
- Shear elongation - deformation of the unit thickness of an adhesive under a shear force



\* SikaBond T55 (J) Elongation value = 4.41

## Discussion - Internal test according to ISO17178: 2013

### Soudal

- **SMX-30 Plus** - the strongest flexible adhesive on the market that has sufficient flexibility to ensure long-term performance which is even more critical when used as a moisture barrier as well, clearly the benchmark adhesive.
- **SMX-20 Plus** - second best adhesive available that exceeds all minimum requirements

### Sika

- **SikaBond 58 SF** - for shear strength its value is 50% of the minimum requirement. Does meet the elongation requirement.
- **SikaBond T55 (J)** - for shear strength its value is approx. 50% of the min requirement but the elongation value is too high

### Wakol

- **MS260** - third best adhesive available that meets all minimum requirements
- **MS230** - for shear strength its value is 50% of the minimum requirement. Does not meet minimum requirement for elongation. Note: this product is recommended for engineered flooring.



## DISCUSSIONS - Cont...

### HB Fuller

- **Floorbond XMS** - for shear strength its value is 50% of the minimum requirement. Does meet the elongation requirement.

### Mapei

- **Ultrabond P990** - for shear strength its value is 25% of the minimum requirement. Does meet the elongation requirement.
- **Ultrabond S995** - very close to meeting the required shear strength. Does meet the elongation requirement.

### Bostik

- **Ultraset SF** - for shear strength its value is 25% of the minimum requirement. Does meet the elongation requirement.
- **Ultraset SingleStep2** - does not meet either shear strength and shear elongation minimum requirements
- **GreenForce** - for shear strength its value is a 33% of the minimum requirement. Just meets the elongation requirement.
- **Ultraset HP** -for shear strength its value is 50% of the minimum requirement. Does meet the elongation requirement.

## Timber & Parquet Sealant













A high quality, plasto-elastic one component joint sealant based on acrylic dispersion that cures to form an extremely durable seal. Designed to colour matched sealing on timber and parquet flooring materials, filling joints with movement up to 15%, connection joints between parquet floors, skirting boards and wall, and suitable for cracks in wooden floors.

### Technical characteristics

- Available in 10 timber matched colours
- Remains flexible and water resistant after cure
- Can be coated, painted, vanished after curing
- Physical drying
- Solvent free



Colour	Item code	Size	Bar code
 light oak	125590	300 mL	5411183122291
 medium oak	125589	300 mL	5411183122307
 cherry	125588	300 mL	5411183122314
 beech	125591	300 mL	5411183122284
 mocca	125592	300 mL	5411183122277
 ash/maple	125587	300 mL	5411183122321
 merbau	125595	300 mL	5411183122352
 light grey	127175	300 mL	5411183126787
 dark grey	127174	300 mL	5411183126770
 pearl white	132208	300 mL	5411183143494

## Moisture Barrier - 1 Coat Epoxy Sealer



A two part water-borne epoxy coating system designated to act as a single coat moisture and vapour barrier primarily over rigid cementitious substrates.

Designed specifically for use with the Soudal range of timber flooring adhesives. Suitable for in-situ concrete, brick, block and stone work, pre-cast and tilt up panels.

Consumption - when used as:

Water vapour barrier :  $5\text{m}^2/\text{L}$

Concrete sealer :  $7\text{m}^2/\text{L}$

### Technical characteristics

- Single coat application
- Equal part mixing 1:1
- Lay floor after 16 hours
- Water clean-up
- Environmentally friendly

Item code	Size	Bar code
222127	8L kit	0680569525529



## Self Levelling Compound Pour & Level



A cementitious underlayment specifically formulated for preparation of concrete sub-floors prior to installing floor coverings, such as timber, tiles, carpet, etc.

The specially selected cements and polymers contained in Pour & Level produce a fast setting underlayment with exceptional adhesion to the most flooring materials.

Used in combination with Soudaprim DP to prime porous surfaces prior.

### Technical characteristics

- Fast setting
- Self-smoothing
- Internal & external
- Feather edge to 50mm thick
- Covers  $12\text{m}^2$  at 1mm thickness
- Working time approx. 10 mins

Product	Size	Item code
Pour & Level	20 kg	222517
Soudaprim DP	5 L	126574
Soudaprim DP	1 L	126575





## Trowels

### Technical Characteristics

- Large: 180mm wide V notch trowel. Depth = 5mm, width = 6mm, spacing = 8mm
- Fine: 180mm wide V notch trowel. Depth = 3mm, width = 3mm, spacing = 3mm
- German made
- High quality stainless steel



## SWIPEX Wipes

### Technical Characteristics

- High performance cleaning wipes
- Ideal for removal of fresh sealants, adhesives and foam from surfaces, hands and tools
- Removes grease and oil
- Contains skin conditioning agents that protects from excessive skin dehydration



## Applicator Guns

### Technical Characteristics

- Dripless System for automatic pressure release
- 18:1 trigger ration
- HD Sausage gun for 600mL sausages
- HD Cartridge gun for 290mL-310mL sealant/adhesive cartridges

Item code	Size	Bar code
112945	Large	5411183049710
112946	Small	5411183049727



Item code	Size	Bar code
113551	100 pcs	5411183057548
128470	50 pcs	5411183131026



Item code	Size	Bar code
106617	300 mL	5411183009462
112802	600 mL	5411183049611





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