

SikaSense®-4450

Water-based high tack pressure sensitive adhesive (PSA)

Technical Product Data

Chemical base	Acrylate dispersion in water
Colour (CQP ¹ 001-1)	White (dry film is transparent)
Solid content (CQP 002-2)	65% approx.
Density (CQP 006-6)	1.0 kg/l approx.
Viscosity, 20°C (40°F) (Brookfield RVT, Sp 5/20 Rpm)	14000 mPas approx.
pH value (CQP 004-1)	4 approx.
Application temperature	15 - 25°C (60 - 75°F)
Coverage (typical value)	20 - 200 g/m ²
Drying time (CQP 565-1)	minimal ² 30 min. at 100 µ approx.
Drying temperature	up to max. 120°C (248°F)
Peel resistance ² (CQP 568-1)	25 N/25 mm approx.
Static shear resistance ² (CQP 566-1)	1400 g approx.
SAFT (CQP 560-1)	90°C (195)approx.
Shelf life ³ (storage 5 - 25°C / 40 - 75°F in sealed container) SikaSense® is sensitive to frost, store above 5°C (40°F). An excess of the recommended storage temperature during transport is not critical	6 months after production

¹ Corporate Quality Procedure ² 23°C (73°F) / 50% r.h. ³ For transport ensure material temperature ≥ 5°C (40°F)

Description

SikaSense®-4450 is a well established water based PSA with high bonding strength. It has high resistance against ageing and is used as an all-round adhesive with broad adhesion range.

SikaSense®-4450 is manufactured in accordance with ISO 9001 / 14001 quality assurance system and the responsible care program.

Product Benefits

- Easy processing
- Solvent free
- High dry solid content
- Broad adhesion range
- Very high initial tack
- High peel strength
- Excellent aging resistance

Areas of Application

SikaSense®-4450 is used to manufacture self-adhesive textiles, foams, plastic sheets, paper etc.

It is used in areas, where high bonding strength and good resistance against ageing and temperature is required.

SikaSense®-4450 is not recommended in areas with lasting humidity exposure (outdoor application). This product is suitable for professional experienced users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry



Method of Application

The adhesive is applied either directly on the substrate (and it is let to dry) or by the transfer process.

In the transfer process SikaSense®-4450 is applied on a release paper and after drying, the part to be bonded is pressed on the adhesive layer. The release paper is protecting foil at the same time. Having removed the release paper the adhesive film is on the substrate and ready to bond.

Transfer application is especially suitable for strongly absorbent materials like foam.

To protect the surface of the dry adhesive film against dust, light, oxygen or other external exposures, the dried adhesive film has to be protected by release paper. The proper quality, suitable for water based pressure sensitive adhesives has to be specified together with the paper release supplier.

Surface preparation

Bonding area must be clean, dry and free from grease, oil and dust. Advice on specific applications is available from the Technical Service Department of Sika Industry.

Application

The adhesive is usually applied by a tooth-comb, roller, brush or spray gun.

For automated application a suitable filter system is required. Advice on selecting and setting up a suitable application system is available from the System Engineering Department of Sika Industry.

Removal

Uncured SikaSense®-4450 may be removed from tools and equipment with water. Once dried, the material can be removed mechanically or with a suitable solvent.

Hands and exposed skin should be cleaned with Sika® Handclean Towel or a suitable industrial hand cleaner and water. Do not use solvents!

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets

Packaging Information

Pail	25kg
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Value Bases

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.

Health and Safety Information

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Material Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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