

1. Product Description

StenSeal® ASR is a hot-applied crack repair and joint sealant, composed of modified asphalt, polymers, plasticizers and fillers. It has high low-temperature flexibility and recovery. The area can be opened to heavy traffic shortly after application. It is suitable for cracks, channels and joints in asphalt areas, as well as for concrete-asphalt joints.

2. Uses

StenSeal® ASR is used on all types of asphalt surfaces for purposes such as crack repair, joint sealing, covering cable ducts and small-scale surface repairs. Because it is elastic and does not support microbial growth, it is suitable for any infrastructure not exposed to solvents or fuels. It can also be used on concrete surfaces and in concrete-asphalt joints. It is particularly preferred in places exposed to continuous water contact such as water channels, dams and hydroelectric power plants.

3. Joint Design

Joint width must not be less than eight times the expected movement or 10 mm. In joints narrower than 15 mm, the sealant depth must be equal to the joint width. For joints 15-30 mm wide, sealant depth must be equal to 80% of the width.

For wider joints, sealant depth must be set to 30 mm. To adjust the depth, backing material must be used inside the joint. For new concrete slabs, the design and filling of control joints (formed during casting or cut after casting) are also important for controlling shrinkage cracks that may occur during and after drying.

It is recommended to review our technical documentation regarding joint design. For dynamic cracks in asphalt and concrete surfaces, saw-cut the cracks horizontally. For static cracks, joints and minor repairs, the application depth must be greater than the width or 4 mm; if not, the crack or joint must be cut to reach the appropriate dimension.

4. Heating

StenSeal® ASR must be melted in a pot with a mixer and a temperature-controlled oil jacket. Material poured in the melting pot must be heated evenly and mixed until homogeneous. The mixture is heated to 160-170 °C and these temperatures are maintained during application.

Mixing must be carried out at low rpm and contact of hot material with air must be kept to a minimum. The temperature of oil in the jacket should never exceed 200 °C. Higher oil temperatures may damage the material due to local overheating.

5. Application

5.1. Surface Preparation

Joint surfaces must be clean and dry. Oil, grease, bitumen, and old joint materials must be completely removed. Loose material on the joint edges must be removed; broken joint edges must be repaired.

Asphalt-Polymer-Based Hot-Applied Joint and Crack Sealant

Highlights

- Ready-to-use
- Maintains its elasticity even at very low temperatures; does not become brittle or crack
- Becomes suitable for heavy traffic shortly after application
- Used for sealing joints and repairing cracks in asphalt pavements



5.2. Backer Material

To achieve the sealant depth determined by the joint width, a heat-resistant material that preferably does not adhere to the sealant must be placed in the joint. Flax rope is suitable for this purpose. The rope diameter must be 5-10% larger than the joint width; the rope must be pressed tightly into the joint.

Dried sand can be used in areas with no risk of freezing and low joint movement. In such cases, it is helpful to place a paper tape over the backer material to prevent the sealant from adhering to it.

5.3. Application

Melted material must be poured hot into the joint or crack. In large-scale applications, the use of pumping systems equipped with a heated steel hose is recommended. Especially in cold weather, it is recommended to heat the surfaces with an LPG burner or an electric hot-air gun and to apply **StenSeal® ASR** to the hot joint or crack to ensure good adhesion.

If the slope of the ground is higher than 2%, it is useful to place barrier rods perpendicular to the joint at certain intervals to prevent flow. Application must not be carried out at temperatures below 10 °C, or in extremely windy or rainy weather. For dynamic cracks, routing a groove at least 10 mm deep and 10 mm wide is recommended. These kinds of cracks must be filled like joints. Repair by routing alone is sufficient in areas where the cracks are infrequent. In areas with severe cracking, coating is recommended for narrow cracks and combined sealing for wide cracks.

The width of the static joints and cracks in asphalt is of little importance. As long as the application depth is at least the crack width, these cracks can be repaired without widening and without opening a groove. In such locations too, opening a groove is useful in order to reliably achieve the application depth and surface cleanliness.

5.4. Application Tools

Use of professional-quality equipment is recommended. Application equipment can be cleaned with hot water after work is completed.

5.5. Cleaning

Equipment and any other tools contaminated with sealant must be cleaned before the sealant cures. For that purpose, tools must first be wiped with a cloth or rag and then cleaned with **StenSolver CL** or aliphatic solvents such as white spirit, kerosene and diesel fuel. These solvents are flammable, so they must not come into contact with hot equipment or open flames.

Equipment cleaning with solvents must be done after the equipment has completely cooled down.

5.6. Restrictions

Not recommended for joints narrower than 10 mm. It must not be used on dirty, oily or wet surfaces. Cleaning such joints before application is important for ensuring good adhesion.

Although the surface has high load-bearing capacity, studded tires, snow chains and stiletto heels may damage it. During application, ambient temperature must not be below 10 °C or the dew point. If application under conditions outside this range is necessary, contact **Stenkim®**.

6. Safety

The required safety measures must be taken during the application of the material and the applicators must use protective clothing, gloves and goggles. Applicators and supervisors must read the Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be disposed of in compliance with relevant regulations and laws.



The application must be carried out by skilled workers under the supervision of experts and the applicators must use all personal protective equipment required for the worksite and the task such as goggles, mask and gloves.

7. Storage

Shelf life is 1 year in unopened packaging. Products must be stored at +10 °C to +25 °C in enclosed storage protected from direct sunlight.

8. Disclaimer

This document is provided for general information and is based on **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information without prior notice.

Stenkim® warrants that its products conform to the stated specifications on delivery. The buyer is responsible for determining the product's suitability for the intended purpose and for all conditions of transport, storage, application, and use. **Stenkim®** accepts no liability for results obtained under conditions outside its control. **Stenkim®**'s liability under this warranty is limited to replacement of non-conforming product and excludes any consequential or indirect damages.

9. Technical Data

Property	Method	Result
Base Polymer		Styrene-Butadiene Block Copolymer
Color		Black
Density	EN ISO 2811-2	1.2 ± 0.1 g/cm ³
Movement Class		25%
Hardness (Shore)	EN ISO 868	A20-40
Maximum Heating Temperature		170 °C
Penetration	ASTM D 5329	1.5 ± 0.5 mm
Adhesion	ASTM D 5329	Pass
Flow at High Temperature	ASTM D 5329	1.8 ± 0.5 mm
Resilience	ASTM D 5329	> 80%
Asphalt Compatibility	ASTM D 5329	Pass
Shelf Life		1 year
Packaging		12 kg plastic containers

Stenkim® reserves the right to make changes to the values in this table at any time.

