StenSeal® ATR

Hot-Applied Elastomeric Joint and Crack Sealant

1. Product Description

StenSeal® ATR is an asphalt-polymer-based, hot-applied, elastomeric joint and crack sealant. It has high adhesion to concrete and asphalt surfaces and is resistant to traffic loads and weather conditions.

Highlights

- Asphalt-polymer-based
- Hot applied
- For sealing expansion joints and cracks
- Highly adhesive to concrete and asphalt
- Resistant to weather conditions
- Resistant to traffic loads

2. Uses

StenSeal® ATR is used for sealing joints and cracks in concrete and asphalt pavements. It is suitable for dynamic cracks, static asphalt joints, and minor repairs. In pressurized and underwater applications, the material must be supported from below to carry the load.

3. Joint Design

In the filling of immobile joints, minor repairs and cracks in asphalt areas, necessary precautions must be taken to ensure that the application depth is not less than the width of the crack and not less than 4 mm; if necessary, the correct application depth must be provided by cutting and widening.

4. Application

4.1. 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.

It must not be used on dirty, oily or wet surfaces. Cleaning such joints before application is important for ensuring good adhesion. 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® ATR** to the hot joint or crack to ensure good adhesion.

4.2. Heating

The **StenSeal® ATR** container is opened, placed in a container filled with hot water, and heated. Indirect heating is required to avoid overheated areas, and the container should not come into direct contact with the flame. The mixture is heated to 60-80 °C and these temperatures are maintained during application.

If heating is carried out with oil instead of water, care should be taken not to overheat, and the temperature of the material should never exceed 140 °C.

4.3. 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 or PP 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.

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4.4. Application

The heated and softened material is applied to the joint or crack with a hot trowel. 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.

4.5. Restrictions

Not recommended for joints narrower than 10 mm. Application must not be carried out at temperatures below 10 °C, or in extremely windy or rainy weather. During application, ambient temperature must not be below 10 °C or the dew point.

Although the surface has high load-bearing capacity, studded tires, snow chains and stiletto heels may damage it. If application under conditions outside this range is necessary, contact **Stenkim®**.

4.6. Application Tools

Use of professional-quality equipment is recommended.

4.7. 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. Safety

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. Required safety precautions must be taken during application of the material; application must be carried out by authorized applicators under expert supervision, and the applicators must use protective equipment such as goggles, mask and gloves.

6. Storage

The material must be kept in dry indoor storage. The recommended storage temperature is 10-25 °C. Under these conditions, the material will retain its properties in unopened containers for 12 months from the production date.

7. 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.

8. Technical Data

Property	Method	Result
Base Polymer		Styrene-Butadiene Block Copolymer
Color		Black
Density		1.4 ± 0.05 g/cm^3
Movement Class		15%
Maximum Heating Temperature		140 °C
Penetration	ASTM D 5329	6 ± 2 mm
Flow at High Temperature	ASTM D 5329	2 ± 0.5 mm
Resilience	ASTM D 5329	> 25%
Asphalt Compatibility	ASTM D 5329	Pass
Shelf Life		1 year
Packaging		Boxes
Related Standards		ASTM D 6690 Type II, ASTM D 3405, EN 14188-1

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

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