

1. Product Profile

StenSeal® ATR is a hot applied crack repair and joint sealant, composed of modified asphalt, polymers, plasticizers and fillers. It is suitable for joints, cracks and minor repairs on concrete and asphalt fields, especially for continuously submerged joints in dams and water channels.

It can be used on horizontal and vertical surfaces. Thanks to its elastic structure, easily meets the movements. It is applied without going up to high temperatures and allows use in a short time after application.

StenSeal® ATR is available in 5kg and 20kg packages.

2. Uses

StenSeal® ATR is specially designed for underwater joints where dynamic movements are less. It is suitable for use in all kinds of infrastructure without solvent and fuel contact due to its salty, clean and waste water resistance and its feature that does not allow microbiological factors.

It is preferred in places exposed to continuous water contact such as water channels, waste water pools, dams, hydroelectric power plants. It can also be used in concrete fields and concrete-asphalt joints. It is suitable for horizontal and vertical joints.

3. Joint Design

In concrete fields, the width of the joints should not be less than six times the anticipated movement and/or 10mm. Joint filling depth should be half as wide.

Necessary precautions should be taken to ensure that the application depth is not less than 4 mm and/or the width of the crack in the filling of immobile joints, minor repairs and cracks in asphalt fields, and if necessary, the correct application depth should be provided by cutting and widening. In pressurized and underwater applications, the material must be supported from the bottom in order to carry the load.

Hot Applied Elastomeric Joint and Crack Sealant

Highlights

- Asphalt-polymer based
- Hot applied
- Does not need high heating
- Easily applied by hand
- Suitable for vertical joints
- Fit for continuous water contact
- Hardens in a short time to bear heavy traffic conditions
- Used for sealing cracks and joints at asphalt pavements

4. Application

4.1. Surface Preparation

Joint surfaces must be clean and dry. Oil, grease, bitumen or sealant remains must be completely removed. Loose materials on the joint walls must be removed; broken joint walls must be repaired.

4.2. Backer Material

A heat resistant material, which preferably does not adhere to the sealant, must be placed in the joint in order to attain the sealant depth determined according to the joint width. Cotton or PP rod is suitable for this purpose. Diameter of the rod must be 5- 10% larger than the joint width; the rod must be placed tight in the joint. Dried sand can be used at places with no frost danger and low joint movement. In such cases, it is helpful to place a masking tape over sand in order to prevent adhesion to the sealant.

4.3. Heating

StenSeal® ATR box is opened and placed in a container full of hot water and heated. Indirect heating is required to avoid overheating zones, the box should not come into direct contact with the flame. The mixture is heated up to 60-80 ° C and these temperatures are maintained during application. If heating is made with oil instead of water, care should be taken not to overheat, the temperature of the material should never exceed 140 ° C.

4.4. Application

The heated and softened material is applied to the joint or crack with a hot trowel. Especially in cold weather, it is recommended to heat the surfaces by means of an LPG burner or an electric blower and to apply StenSeal® ATR in hot joints for better adhesion. Application must not be carried out at temperatures below 10 °C and at extremely windy or rainy weather.

Sealing cracks: Generally, it is helpful to saw the cracks to form a groove of minimum 10 mm depth and 10 mm width. These kinds of cracks should be filled like joints. Repair after saw cutting is sufficient at places where the cracks are infrequent. In case of severe cracking, coating for narrow cracks and combined sealing for wide cracks are recommended.

The width of the joints and cracks in the asphalt is not so important if they are static. If the depth of application is at least width of the crack, this kind of cracks could be repaired without opening canals. But to ensure the exact depth and surface cleaning it is recommended to open canals.

5. Cleaning

Application devices and other sealant smudged devices must be cleaned before the sealant cures. For that purpose, tools first wiped with cloth or oakum must be cleaned with StenSolver CL or aromatic solvents such as toluene and xylene.

6. Safety

Applicators and supervisors must read Material Safety Data Sheet (MSDS) carefully and observe the considerations written therein. The application must be carried out by skilled workers under supervision of experts and the applicators must use all kinds of protective equipment required for the worksite and the task such as goggles, mask and gloves.

7. Storage

The material must be kept away from sunlight in dry indoor storage. Recommended storage temperature is 10-30°C. Stored in these conditions, the shelf life of unopened containers are 12 months.

8. Company Liability

The information contained in this document is based on site experience of and laboratory tests done by Stenkim® and meant to give general information. It is the purchaser's responsibility to ensure applicability of products to their use. All Stenkim® products are available in specified quality and conditions. The company accepts no liability whatsoever unless the transportation, storage, application conditions and customer use are overseen by Stenkim®.

Stenkim® reserves the right to update all information contained in this document without notice.

9. Technical Data

Property	Test Method	Result
Base Polymer		Styrene Butadiene Block Copolymer
Color		Black
Movement Capability		15 %
Density		1.40±0.05 g/cm ³
Maximum Heating Temperature		140 °C
Penetration	ASTM D 5329	6.0±0.5 mm
Flow	ASTM D 5329	2.0 ± 0.5mm
Rebound	ASTM D 5329	>25 %
Asphalt Compatibility	ASTM D 5329	Pass
RELATED STANDARDS: ASTM D 6690 Tip II, ASTM D 3405, TS EN 14188-1		

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