StenSeal® 2PT 210 MU

Two-Component, Polyurethane-Based, Coal-Tar-Modified, Elastomeric Joint Sealant for Machine Application

1. Product Description

StenSeal® 2PT 210 MU is a machine-applied, two-component, cold-applied, coal-tar-modified polyurethane joint sealant. It cures chemically, is self-leveling and elastomeric, and has high abrasion resistance and adhesion. It is suitable for heavy traffic conditions and is especially resistant to jet fuels, hydraulic fluids, oils and dynamic movement.

It is completely resistant to ultraviolet radiation. **StenSeal® 2PT 210 MU** is classified as Type M, Grade P, Class 25, Use T according to ASTM C 920.

Highlights

- Specially designed for machine applications
- Cures chemically and self-levels
- Fast curing, no manual labor required
- Can be opened to traffic in less than 2 hours
- High abrasion resistance and adhesion strength
- Resistant to dynamic movement
- Resistant to jet fuels, oils, diluted acids and bases, and various chemicals
- Can also be used to repair cracks in concrete floors
- Resistant to UV radiation

2. Uses

StenSeal® 2PT 210 MU is designed for airport runways, parking areas, terminals, ramps, cargo areas, and service roads. It is also a versatile and economical joint sealant for highways exposed to all types of traffic, parking areas, secondary roads, bridge connections, ramps, stadiums, industrial floors, sidewalks, fuel stations, and road and concrete areas in petrochemical and other industrial facilities. It is suitable for all types of outdoor horizontal joints. It is ideal particularly for areas requiring fast application and low labor.

3. Joint Design

Joint width must not be less than four times the expected movement or 8 mm. In joints narrower than 15 mm, the sealant depth must be equal to the joint width. For joints 15-25 mm wide, sealant depth must be equal to 80% of the width (min. 14 mm).

For wider joints, sealant depth must be set to 20 mm. To adjust the depth, backing material must be used inside the joint. The backer material must be placed at a depth equal to the combined sealant depth and the recess left at the surface.

The calculated dimensions for some joint widths are given in the table. 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.

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.

StenSeal® 2PT 210 MU is affected by water before curing, like all other polyurethane-based materials. Therefore, the joints must be dry and the sealant must not contact water until chemical curing occurs.

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4.2. Primer

StenSeal® 2PT 210 MU can be used in new concrete joints without primer. However, primer application helps minimize the negative effects of possible contamination, concrete moisture, and loose material in all cases. Therefore, **StenAst® S** or **StenAst® SC** is recommended for glass and similar surfaces, and all surfaces subject to continuous water contact.

4.3. Backer Material

A backer rod that preferably does not adhere to the sealant must be placed in the joint to achieve the sealant depth determined by the joint width. Closed-cell polyethylene foam rods (**StenBacker**) are suitable for this purpose. The diameter of the backer rod must be 10-25% larger than the joint width, and the rod must be placed tightly in the joint.

Care must be taken not to damage the backer rods during placement. In wide joints, semi-rigid materials, such as polystyrene foam, can be used instead of a backer rod. In such cases, a polyethylene tape must be placed over the backing material to prevent the sealant from adhering to it.

4.4. Mixing

StenSeal® 2PT 210 MU consists of two components called A and B, packaged at a volumetric mixing ratio of 1:1. The containers of components A and B are opened and placed in or filled into the appropriate reservoirs of the application machine; ensure that the machine is set to a 1:1 ratio.

4.5. Joint Dimensions

Joint Width (mm)	8	10	12	14	16	18	20	24	28	32	36
Sealant Thickness - mm	8	10	12	14	14	14	16	19	20	20	20
Sealant Recess - mm	4	5	6	7	7	7	8	10	10	10	10
Backer Rod Diameter - mm	10	13	15	18	20	23	25	30	35	40	45
Minimum Backer Rod Depth - mm	12	15	18	21	21	21	24	29	30	30	30
Consumption - meters / 45 kg set	502	321	223	164	143	124	100	70	57	50	45

4.6. Application

Considering the application site and the capacity of the application equipment, only as much material as can be used during the application process must be prepared on site. It is recommended to condition the materials at 20-30 °C for one day before application. In machine applications, pot life is important for the tip section where the components mix together.

If the application is interrupted for any reason, the interrupted application area must be cleaned immediately with **StenSolver PU**. Cut the static mixer-nozzle assembly to the correct joint width. During application, advance the nozzle tip by sliding it over the backing material in the joint. This ensures that no gap remains beneath the sealant and that a sufficient amount of sealant is applied. Solvents cannot be used for thinning the sealant. Products from opened packages should be used without delay and with minimal exposure to air.

Gelation occurs in products that come into contact with air. Products showing gelation must not be used. It is recommended to tape both sides of the joint before application, especially where decorative appearance is important.

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In this way, material that gets onto the area outside the joint during application is removed by pulling off the tape after application. Sealing cracks: Repairing cracks and ensuring watertightness is especially important on concrete pavements at airports and highways.

StenSeal® 2PT 210 MU can also be used for these purposes. In cracks, it is generally recommended to rout a groove at least 10 mm deep and 6 mm wide. 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.

4.7. Restrictions

It is not recommended for joints narrower than 8 mm. It cannot be used in wet or dirty joints. Joint surfaces must be clean and dry.

Although the surface has high load-bearing capacity, studded tires, snow chains and stiletto heels may damage it. During application, ambient temperature must not exceed 35 °C and must not fall below 5 °C or the dew point. If application under conditions outside this range is necessary, contact **Stenkim®**.

4.8. Application Tools

Use of professional-quality equipment is recommended.

4.9. 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 PU** or aromatic solvents such as toluene and xylene. If the machine is to remain idle for more than a few days, it is recommended to clean the lines and then fill them with **Stenkim® Koruyucu Yağ** for protection.

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. 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.

Since it contains coal tar, it must not be used indoors or in direct contact with drinking or service water. This product is not offered for sale in EU and EFTA countries.

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.

Low temperatures may cause crystallization of the product; in this case, the product can be used after being warmed to +20 °C and homogenized. After prolonged storage, the product must be stirred thoroughly before use.

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		Two-Component Polyurethane
Solids Content (by weight)		100%
Color		Black
Density		1.4 ± 0.1 g/cm³
Movement Class	In extension	25%
Movement Class	In compression	25%
Elongation at Break		> 300%
Hardness (Shore)	EN ISO 868	A15-25
Elastic Recovery		>90%
Pot Life @20 °C		5 minutes
Tack-free Time @20 °C	EN 14188-2	10 minutes
Ready for Light Foot Traffic @20 °C		1 hour
Time to Open to Heavy Traffic @20 °C		2 hours
Cure Time for Chemical Resistance @20 °C		2 days
Shelf Life		1 year
Packaging		45 kg pail sets
Related Standards		EN 14188-2, ASTM C 920, SS-S-200E, BS 5212

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

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