StenSeal® 2PT 210 MU

1. Product Description

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

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

Highlights

- Two-component, polyurethane-based
- Specially designed for machine applications
- Chemically curing, provides a smooth surface
- Fast curing, no manual labor required
- Becomes trafficable in less than 2 hours
- Very 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, pavements, 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 for areas especially requiring fast workmanship and application.

3. Joint Design

Joint width must not be less than four times the expected movement or 8 mm. Up to 15 mm width, joint sealant depth must be equal to the width. Between 15 and 25 mm joint widths, sealant depth must be equal to 80% of the width (min. 14 mm).

For wider joints, sealant depth must be set to 20 mm. For adjusting depth, a backer rod must be used inside the joint. Backer material must be placed at the calculated total joint and recess depth.

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 curing. 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 sealant residues must be completely removed. Loose materials on the joint walls must be removed; broken joint walls 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.

Stenkim Kimyasal Maddeler Sanayi ve Ticaret A.S.
Office: Portakal Cicegi Sok. Ansera Is Merkezi 17/126 Ayranci/ ANKARA Tel: +90 312 442 2630 Fax: +90 312 442 2615
www.stenkim.com.tr

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 plastic, 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 rod must be 10-25% larger than the joint width, and the rod must be placed tightly in the joint.

Rods must not be damaged 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 adhesion to the sealant.

4.4. Mixing

StenSeal® 2PT 210 MU consists of two components called A and B, packed at 1:1 volumetric mix ratio. The containers are opened and placed in or filled into the appropriate reservoirs of the application machine; ensure that the machine is set for 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	22	24	29	30	30	30
Consumption - metres / 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, enough material to be used during the application process should 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, this section 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. It is important to use opened packages without delay and without excessive contact with 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.

Stenkim Kimyasal Maddeler Sanayi ve Ticaret A.S.
Office: Portakal Cicegi Sok. Ansera Is Merkezi 17/126 Ayranci/ ANKARA Tel: +90 312 442 2630 Fax: +90 312 442 2615
www.stenkim.com.tr

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 general, routing a groove at least 10 mm deep and 6 mm wide is recommended. Repair by routing alone is sufficient at places 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 5 mm. Not suitable for wet or dirty joints. Joint surfaces must be clean and dry.

Despite its high load-bearing resistance, studded tires, ice chains, and spiked heels may cause damage. 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.

5. Cleaning

Equipment and any other tools contaminated with sealant must be cleaned before the sealant cures. For that purpose, tools first wiped with a cloth or rag must be cleaned with **StenSolver PU** or aromatic solvents such as toluene and xylene.

6. Safety

Applicators and supervisors must read the Material Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be handled in compliance with relevant regulations and laws. 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.

This product is not offered for sale in EU and EFTA countries.

7. Storage

The material must be kept in dry indoor storage. 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 heating and homogenizing at +20 °C. The product must be stirred thoroughly before use after prolonged storage.

8. Disclaimer

This document is provided for general information and reflects **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information at any time without 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 application and for all conditions of transport, storage, handling, 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		Two-Component Polyurethane
Solid Content		100
Color		Black
Density		1.4 ± 0.1 g/cm³
Movement Class	In extension	25%
Movement Class	In contraction	25%
Elongation at Break		> 300%
Hardness (Shore)	EN ISO 48-4	A15-25
Resilience		>90%
Penetration		0.5 mm
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 D 1854, ASTM C 920, SS-S-200E, BS 5212

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

Stenkim Kimyasal Maddeler Sanayi ve Ticaret A.S.
Office: Portakal Cicegi Sok. Ansera Is Merkezi 17/126 Ayranci/ ANKARA Tel: +90 312 442 2630 Fax: +90 312 442 2615
www.stenkim.com.tr