

StenSeal[®] 2PT110

1. Product Profile

StenSeal[®] 2PT110 is a two component, cold applied, chemically curing, self leveling type, polyurethane based, coal tar modified, low modulus elastomeric material with high abrasion resistance and adhesion; suitable for heavy traffic conditions; fuels, hydraulic fluids and oils and dynamic movements. It is resistant to UV radiation.

StenSeal[®] 2PT110 is classified as Type M, Grade P, Class 50, Use T according to ASTM C920.

StenSeal[®] 2PT110 is available in 4 kg and 12,5 kg sets.

2. Uses

StenSeal[®] 2PT110 is produced especially for park areas, cargo fields, bridges and roads. It is suitable for all joints and cracks where high elasticity is desired. Provides advanced adhesion and elasticity in concrete - concrete, asphalt - concrete joints and asphalt - asphalt joints. It is suitable for all kinds of horizontal outdoor joints.

3. Joint Design

Joint width must not be less than four times the expected movement or 6 mm. Up to 15 mm width, joint sealant depth must be equal to the width. Between 15 and 30 mm joint widths, sealant depth must be equal to 80% of the width. For wider joints, sealant depth must be set to 30 mm. For adjusting depth, backer material must be used inside the joint.

For localizing the cracks caused by contractions that may occur during and aftercuring at new concrete pavements, design and sealing of the contraction joints left before cure or saw cut after cure are also important.

**Cold Applied,
Polyurethane Based,
Heavy Duty and
Traffic Grade Crack
Repair Material and
Joint Sealant**

Highlights

StenSeal[®] 2PT110

- It is polyurethane based, two component.
- It is cold applied.
- It cures chemically.
- It is self leveling.
- It has high abrasion resistance and adhesion.
- It is resistant to dynamic movements.
- It is ideal for all joint and crack repairs where high elasticity is desired.
- Provides advanced adhesion and elasticity in asphalt - concrete joints and asphalt - asphalt joints.
- It is resistant to fuels, oils, diluted acids and bases, various chemicals.
- It is fully resistant to UV radiation.
- Faster or slower curing can be provided depending on the customer needs.

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It is recommended that you refer to our technical document on joint design.

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. **StenSeal® 2PT110** is affected from water before curing like all other polyurethane materials. Therefore the joints must be dry and the sealant must not contact water until chemical curing occurs.

4.2. Primer

StenSeal® 2PT110 can be used in concrete joints without primer. However, in any case primer application minimizes the negative effects of possible contamination, concrete moisture and loose materials. Therefore; **StenAst® S** is recommended for concrete, plastic, glass and all types of surfaces in permanent contact with water, **StenAst® SI** is recommended for asphalt surfaces, **StenAst® PU** is recommended for wooden surfaces and polyurethane coatings, and **StenAst® 2EP** is recommended for metal surfaces.

4.3. Backer Material

A rod 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. Closed cell polyethylene foam rods are suitable for this purpose. Diameter of the rod must be 10 - 25% larger than the joint width; the rod must be placed tight in the joint. Rods must not be damaged during placement. In wide joints, semi-rigid materials like polystyrene foam can be used instead of rod. In such cases, it is helpful to place a polyethylene tape over backing material in order to prevent adhesion to the sealant.

4.4. Mixing

StenSeal® 2PT110 consists of two

components, namely A and B, and these are packed in proportional mixing ratios.

StenSeal® 2PT110 First the container of component A is opened and it is homogenized for 2 - 3 minutes, then all of component B is poured onto component A and it is mixed via a low speed (100/500 rev/min) drill and a suitable paddle for 4 - 5 minutes. Longer mixing times are required to obtain a homogeneous mixture in manual mixing (not recommended). During mixing the mixer must be moved inside the container and it must be ensured that no air is trapped inside.

Attention: Manual mixing of the components is insufficient. Inadequate mixing resultant the material (partially) not to be cure properly.

4.5. Application

The amount that can be used within the pot life must be determined by considering the application place and the capacity of the application apparatus. Mixed material must be used within its pot life. Solvents can not be used for thinning the sealant at the end of its pot life. Material at the end of its pot life must not be used.

It is recommended to tape both sides of the joint before starting application on joints especially where the decorative look is important. In this manner material smeared outside of the joint during the application is removed by pulling off the tape after the application.

4.6. Accelerated Curing

In cases where curing is desired to be completed sooner, accelerator **StenQuick PU** supplied by the production company can be used. In order to attain a comfortable application time under very hot weather conditions, decelerating the curing may be desired; in such cases it is recommended to

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use inhibitor **StenSlow PU**. For curing times in these cases, please contact the producer.

4.7. Limitations

It is not recommended for joints narrower than 4 mm. It must not be used on dirty, oily, dusty and wet joints. In order to ensure a good adhesion, it is important to clean such joints before application. Despite its high mechanical resistance; studded tire, tire chain, high heeled shoes cause damage. During the application, ambient temperature must not be higher than 35°C and lower than 5°C. If the application has to be carried out in other conditions, get recommendations of the production company.

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. Emptied packages must be handled in compliance with relevant regulations and laws.

7. Storage

The material must be kept in dry indoor storages. Recommended storage temperature is 10 - 25°C. Stored in these conditions, the shelf life is 12 months.

8. Maintenance

Damaged parts should be repaired. If required, please refer to our Technical Support service regarding this matter.

9. 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.

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Technical Data

Property	Method	Result
Base Polymer		2 Component Polyurethane
Solids Content %		100
Movement Capability	Expansion	50%
Movement Capability	Contraction	50%
Color		Black
Elongation at Break	ASTM D412 Die B	750%
Density		1.50±0.10g/cm ³
Durometer Hardness (Shore)	ASTM D 2240	A 15±5
Resilience	TS 5926 EN 14188-2	>96%
Pot Life of The Mixture @20°C		1 hours
Tack Free Time @20°C	TS 5926 EN14188-2	12 hours
Cure Time for Light Trafficability @20°C		24 hours
Cure Time Heavy Trafficability @20°C		48 hours
Cure Time For Chemical Resistance @20°C		4 days
RELATED STANDARDS: TS5926, ASTM D1850, ASTM C-920, ISO EN 14188-2, MIL SS-S 200E, BS 5212		

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

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