izofalt yalıtım

Date of revision: June 26 2026
Revision number: 003

BİTÜWAP 9420 SHIELD PU BITUM SEAL 2 – K TECHNICAL SPECIFICATIONS

TWO COMPONENT, POLYURETHANE AND BITUMEN BASED, SELF LEVELING HORIZONTAL JOINT SEALANT

DESCRIPTION FOR IT

It is a two component, cold applied, self leveling, chemically curing, polyurethane bitumen based horizontal joint sealant that yields a smooth surface;it is elastomeric, highly resistant to abrasion and possesses strong adhesion, is unaffected by fuels, hydraulic fluids, and oils, and offers high flexibility and resistance to dynamic movements.

AREAS OF USE

It is manufactured for use in airports, parking areas, cargo yards, bridges, and roads. It is suitable for all joints and cracks requiring high flexibility. It provides superior adhesion and flexibility in concrete to concrete, asphalt to concrete, and asphalt to asphalt joints. It is suitable for all types of horizontal joints in open areas.



ADVANTAGES

It is applied cold, cures chemically, and naturally forms a smooth surface. It features very high abrasion resistance and bond strength, with a structure capable of withstanding dynamic movements. It is ideal for repairing joints and cracks where high flexibility is required, providing superior adhesion and flexibility for joints between asphalt and concrete, as well as between asphalt sections. It is resistant to fuels, hydraulic oils, dilute acids and bases, and various chemicals, and is completely resistant to uv radiation. Curing speed can be adjusted to be faster or slower depending on user requirements.

JOINT DESIGN

The joint width must not be less than twice the expected movement or 6 mm. For joints narrower than 16 mm, the sealantdepth should be set equal to the width. For joints between 16 mm and 26 mm, the joint depth should be 80% of the joint width. For joints between 26 mm and 36 mm, the joint depth should be set to 20 mm. Please contact our company for wider joints. A backer material must be used within the joint to control the depth. The backer material should be placed at the calculated total depth of the joint and chamfer. Calculated dimensionsfor certain joint widths are provided in the table.In new concrete areas, the design and sealing method of dummy joints whether formed during casting or cut afterwards are crucial for localizing cracks caused by shrinkage during and after the drying process. We recommend consulting our technical documentation regarding joint design.

Joint width – mm	8	10	12	14	16	18	20	24	28	32	36
Joint filler thickness – mm	8	10	12	14	14	14	16	19	20	20	20
Joint recess depth – 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

APPLICATION CONDITIONS

The application temperature (ambient and surface) must be between +3°C and +35°C. For outdoor applications, there must be no rain 24 hours prior to, during, and 24 hours after the application. The substrate temperature must be at least 3°C above the current dew point.

TOOLS USED

Hand mixer, caulking gun (applicator), spatula.

SURFACE PREPARATION

The surface should be cleaned using pressurized water if possible and dried. Oil, grease, fuel, and paraffin residues must be removed from the joints; additionally, the surface must be completely cleared of form release agents, cement residues, wood chips, and loose particles.

PRIMING

BİTÜWAP 9420 SHIELD PU BITUM SEAL 2-K; It can be applied to new concrete joints without a primer. However, applying a primer minimizes the adverse effects of potential contamination, concrete moisture, and loose material in all cases. Therefore, the use of a primer is recommended for surfaces such as plastic, glass, and the like, as well as for any surface subject to continuous water contact.

BASE MATERIAL

In order to provide a filling depth determined according to the joint width, a layer should be placed inside the joint, preferably one that does not adhere to the filling material wick should be placed. The diameter of the wicks should be 10-25% larger than the joint width. The wick should be tightened and placed into the joint. Placement care should be taken not to damage the wicks during the process. Semi rigid materials such as polystyrene foam instead of roving in wide joints available. In these cases, a polyethylene tape should be placed on the base material to prevent the filling from sticking must be placed.

MIXING

BİTÜWAP 9420 SHIELD PU BITUM SEAL 2 – K consists of two components, designated A and B, which are packaged in the appropriate mixing ratio. To prepare the mixture, open the container of component A and stir its contents for 1–2 minutes; then, pour the entire contents of component B into component A and mix for 3 minutes using a low speed drill equipped with a suitable mixing paddle. If mixing is performed manually, a longer mixing time is required to ensure a homogeneous blend. During the mixing process, the mixer should be moved throughout the container, and care must be taken to avoid incorporating air into the mixture.

APPLICATION

The amount of sealant to be used within its pot life must be determined based on the application site and the capacity of the application tools. The mixed material must be used within its pot life. Under no circumstances should any solvent be used to thin the sealant once its pot life has expired.The prepared mixture is loaded into a refillable piston type application tool (sealant gun or applicator). For both application methods, a nozzle with a diameter suitable for insertion into the joint must be attached to the tool; during application, this nozzle should be moved by sliding it along the backing material within the joint. This ensures that no voids are left beneath the sealant and that a sufficient amount of material is applied. After application, the surface of the sealant should be smoothed with a spatula. Application can also be performed directly using a spatula. Especially for joints where a decorative appearance is important, it is recommended to apply masking tape to both sides of the joint before starting. This ensures that any material spilling outside the joint during application is removed when the tape is taken off afterwards.

RESTRICTIONS

It is not recommended for joints narrower than 4 mm. It should not be used in joints that are dirty, oily, bituminous, or wet; cleaning such joints prior to application is essential to ensure proper adhesion. Despite its high load bearing capacity, it can be damaged by tire chains or high heeled shoes. During application, the ambient temperature must not exceed 35°C or fall below 5°C.

CONSUMPTION

Total consumption varies depending on the depth and width of the joints to be treated.

TOOLS CLEANING

Application tools and other equipment soiled with the sealant must be cleaned before the sealant hardens. Tools should first be wiped with a cloth or waste cotton and then cleaned using aromatic-based solvents such as toluene or xylene.

PACKAGING

10 kg Set (Component A: 5 kg, Component B: 5 kg)

STORAGE AND SHELF LIFE

It should be stored in a dry, moisture free environment away from direct sunlight, at temperatures between +10°C and +25°C. The shelf life is 12 months from the date of manufacture, provided the packaging remains undamaged and unopened. Packaging must be protected from frost and heat. Pallets should not be stacked on top of each other during transport and storage.

STANDARD

EN 1504-2:2004 CE Certificate

WARNINGS AND RECOMMENDATIONS

Only the product's own liquid should be used when preparing the mixture; absolutely no foreign substances should be added. Furthermore, methane gas seeping from the soil may have accumulated inside the tanks. Precautions must be taken with this possibility always in mind.

ÖZELLİKLER

FEATURE	METHOD	RESULT
Base Polymer		POLYURETHANE BITUMEN
Solid content %		85
Colour		BLACK
Density (A+B)		1,10±0,1 g/cm3
Elongation at break	ASTM D 412	> % 2000
Tensile strength		7 nm
Hardness (Shore A)	ASTM D 2240	A25±5
Back stretch	EN 14188-2	>%96
Pot Life of the Mixture @20°C		1 hour
Pre hardening at 20°C	EN 14188-2	1-2 hourt
Time to Light Foot Traffic @20°C		24 hour
Time to Suit Heavy Traffic @20°C		2days
Chemical Resistance Development Time @20°C		4 days

SAFETY WARNINGS

Ensure adequate ventilation and implement health precautions when using in enclosed spaces. Do not leave the container lid open. Do not expose to direct sunlight or heat. Keep out of reach of children. Always use appropriate safety equipment such as masks, gloves, and goggles. Protect your eyes and face. Avoid contact with eyes and skin. In case of eye contact, rinse immediately with plenty of water and consult a specialist. Refer to the Material Safety Data Sheet for detailed safety information.

LEGAL DISCLAIMER

İZOFALT Insulation Construction Textile Ind. And Trade Ltd. Co. İs not responsible for application errors that may occur if the product is used for purposes other than intended or if the above conditions are not complied with.