

ACS BITUCEL 445®

Cement and Polymer Modified Bitumen Rubber Based,
Two Component, Waterproofing Material



■ Description

ACS BITUCEL 445® is cement and modified bitumen emulsion based two-component pasty-consistency high durability waterproofing coating. (Complies with DIN 18195 and TSE EN15814)

■ Place of usage

- Indoor and outdoor, vertical and horizontal surfaces on water pressureside.
- Insulation of concrete surfaces which is constantly in contact with water and soil beneath.
- Foundations and curtain walls.
- Insulation of concrete against aggressive waters from ground and microorganism (DIN4030).
- Horizontal and vertical applications where the water comes.
- Foundations, underground parking structures.
- Retaining walls.

■ Consumption

Consumption is 3 kg/m² in 2-3 layer. During the application consumption may increase according to surface roughness.

■ Advantages

- Easy to prepare and use.
- It forms jointless, permanent waterproofing coating.
- Bridges shrinkage cracks with its elastic behaviour.
- Resistant to freeze thaw cycle.
- It has resistant to salt solution in soil.
- Solvent free, Eco-friendly.
- Resistant to bacterial attacks, salts and acids in the soil.
- Applied to dry and slightly moist surfaces.
- Suitable for use in areas affected by motion and vibrations.
- Suitable for horizontal and vertical applications.

TECHNICAL CHARACTERISTICS

ACS BITUCEL 445® Component A	Polymer modified bitumen emulsion
ACS BITUCEL 445® Component B	Special Cements Dry Mix
Color	Brown / Black
Consistency	Pasty
Density	1.09 kg/lit
Density of Mixture	~ 60%
Surface Temperatur	+5 °C +35 °C
Service Temperature	-20 °C +80 °C
Usage Time	1 Hour
Curing Time	20-24 Hours
The Contact Time With Water	48 Hours
Mixing Ratios	Component A 24 kg Component B 8 kg

NOTE: The above values are given at + 23 ° C and 50% relative humidity environment. High temperatures shorten the time, low temperatures prolong the time.

APPLICATION PROCEDURE/SURFACE PREPARATION

Application substrate must be dry, sound, mainly smooth, clean and fine pored, free from honey combs, voids, cracks, ridges, dust, tar, pitch forming oil, old paint and other bond

breaking residues. Wooden or iron wedges must be removed from the surface and active water leakages must be prevented with ACS MORTAR® group. Corners and edges should be chamfered at least 4 cm radius. ACS BITUCEL 445® should be primed on dry concrete

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MIXING

ACS BITUCEL 445®, Packed in 24 kg of A component and 8 kg of B component. Add component B slowly into component A (in the pail) while mixing with 400-600 rpm electric mixer. Mix at least 3-5 minutes until homogenous, lump free, pasty consistency obtained. Wait for 3-5 minutes and mix again about 30 seconds to make ready for application. Mix must be used in one hour.

MIXING RATIOS

ACS BITUCEL 445®	Component A	Component B
Mixture Amount	24 kg	8 kg
Mixture Density	1,09 kg/liter	

APPLICATION METHOD PRIMER APPLICATION

ACS BITUCEL 445® Mix the material as described. Take enough amount of material and dilute 1:3 or 1:5 of water depending on the substrate absorbency. Mix with 400-600 rpm electric drill until lump free, homogenous consistency obtained. Apply equally on the substrate with a brush and do not allow accumulation on horizontal surfaces. Wait until the primer sufficiently cured before the first coat application. Apply **ACS BITUCEL 445®**, with trowel or brush with the consumption mentioned on the coverage table.

PROTECTION OF THE COATING

Wait until the waterproofing coating sufficiently cured before backfilling the excavation. **ACS BITUCEL 445®** must be protected from damages during the backfilling with a suitable drainage or heat insulation boards. Sharp stones, rubbles and etc. Are not suitable for excavation backfilling.

TIPS TO NOTICE

- Wait for the appropriate ambient and substrate temperature if it is less than 8°C or more than 35°C. Do not apply **ACS BITUCEL 445®** under rain, extremely hot or windy weather.
- Do not apply **ACS BITUCEL 445®**, under the rain or prediction of rainy.
- Application must be protected from direct sun-light, wind, frost or rain in 24 hours.
- Working times of cement and bitumen emulsion based systems are affected from environmental and surface temperatures, and relative humidity in the air. In low temperatures the reaction slows down, and this increases working period and working time. High temperatures accelerate the reaction

and the periods stated above decrease depending on this. In order to complete the curing of material, environmental and surface temperatures must not decrease below the minimum allowed temperature.

- **ACS BITUCEL 445®**, must be used within 1 hour after mixing.
- Areas that are not fully cured must not be exposed to water.
- Application should be done at least 2-3 times.
- Especially in hot weather applications, the reason for rapid loss of water may occur in the period of use consistency increase will not exceed 3% of the amount of material can be removed by adding water. The water added material should be used after homogeneous mixing.
- Do not use **ACS BITUCEL 445®** inside the potable water tanks and swimming pools. Used to seal outer surfaces.

CLEANING OF TOOLS

Clean the tools and equipments with warm soapy water after the application. Once **ACS BITUCEL 445®** is cured, it can only be mechanically removed from the surface by using a suitable solvent.

PACKAGING

Component A : 24 kg plastic bucket, Component B : 8 kg bag.

STORAGE

Store in cool and dry conditions protected from freezing. In short-term storage, maximum 2 palettes can be stored on top of each other and delivery must be according to first in first out system. In long-term storage, do not store palettes on top of each other.

SHELF LIFE

The shelf life is 12 months from the date of production under suitable storage conditions. **ACS BITUCEL 445®** may freeze under 0 C°. Tightly seal the cover of the opened pails and do not store more than one week.

SAFETY

During the application, work clothes, protective gloves, goggles and masks should be used in accordance with the Occupational Health and Safety Rules. Due to the irritating effects of uncured materials, the components should not be allowed to come into contact with the skin and the eye. In case of contact, immediately wash with plenty of water and soap. If swallowed, seek medical advice immediately. Food and beverages should not be left at the application areas. Keep out of reach of children.

□ Responsibility

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ is only responsible for the quality of the product. ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones (06/2019)