

ACS HYBRID PROOF®

Polyurethane Based, Two Component, Solvent Free,
Waterproofing Coating Applied With Special Spray Machines



■ Description

ACS HYBRID PROOF®, is a solvent free, fast curing, crack bridging polyurethane based two-component waterproofing membrane with a 1:1 mix ratio. It is highly reactive and can only be applied by special spraying equipment.

■ Place of usage

- Roof, balcony, terrace.
- Aircraft hangars.
- Water insulation of foundation and concrete shear wall.
- Flowerpots.
- Rainfalls.
- Tunnels.
- Warehouses.
- Decorative pools.
- Water channels.
- Technical Characteristics

- Underground water tanks.
- Insulation of car parks.

■ Advantages

- Ensures %100 insulation without the need for other solutions for corners, sides and joints.
- It creates a monolithic and do not require grouting surfaces.
- High mechanical strength.
- Can be applied on horizontal and vertical surfaces.
- Application and the surface to be ready for use is very fast.
- 100% adhesion to the substrate
- Crack bridging properties.
- Adherence to many surfaces and ease of application with proper primer.
- Solvent free.
- Zero VOC and odorless.
- 1:1 Mixture

TECHNICAL CHARACTERISTICS

ACS HYBRID PROOF® Component A		Polyurethane resin
ACS HYBRID PROOF® Component B		Polyurethane hardener
Color-Finish		Grey - semi-matte
Density	Component A	1,05 kg/lt
	Component B	1,1 kg/lt
Solid by Volume		%100 (A+B)
Pot Life		10-15 Seconds
Tack Free Time (3 mm. thickness)		50-70 Seconds
Wait between layers		0 - 8 Hour / 20°C
Viskozite A Component		1300±200 cps. (Brookfield)
Viskozite B Component		1000±200 cps. (Brookfield)
Elongation (ASTM D-412)		500 ± 20%
Shore A - hardness (ASTM D-412)		75 ± 5
Tensile Strength (ASTM D-412)		1200 ± 200 psi
Tear (Angle Type)		30-40 N
Tear (Trouser Type)		10 - 20 N
Drying Time		3- 5 Hours / 20°C

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Fully Cured	> 24 Hours / 20°C
Water Absorption (ASTM D471)	<0,5 (max. 25°C, 24 Hours)
Crack Bridging (ASTM C836)	Pass (-25°C, 1.6mm crack, 25 cycles)
Impact Resistance (ASTM G14)	>210 lbs
Kopma Dayanımı - Beton (ASTM D4541)	≥8 N/mm ²
Pull-Off Strength (Steel 75-100 micron surface profile), (ASTM D4541)	≥8 N/mm ²
Tensile Force at Break (DIN 53504)	≥8 N/mm ²
VOC % (ASTM 1259)	%0
Service Temperature – Dry	-30 / +120°C
Service Temperature – Wet	+4 / +50°C

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

ACS HYBRID PROOF® can be applied on very different substrates using different primer products. Surface must have at least 25 N / mm² compressive strength and at least 1.5 N / mm² pull-off test results. According to the seasons, Concrete's age must be at least 28 days, concrete surfaces should have a maximum moisture content of 4-6%. Remove all loose and friable material, oil, paint residues, must be free from cement slurry. Large cracks and defects should be repaired in advance with **ACS MORTAR RM 40®**, or **ACS EPOXY FIX®**. Cement shell and bright screed on concrete surface should be cleaned, roughened and wiped by tools such as sanding, notching machine, tumble diamond grinding machines and forced grinding machines. All surfaces should be cleaned with industrial vacuum cleaner from dust. **ACS EPOXY PRIMER MAX®** should be primed.

MIXING

ACS HYBRID PROOF® has a 1: 1 mixing ratio.

MIXING RATIOS

ACS HYBRID PROOF®	Component A	Component B
Mixture Amount	200 kg	220 kg
Mixture Density	1,07 kg/liter	

APPLICATION/PRIMING

Concrete surfaces: Surface must have at least 25 N / mm² compressive strength and at least 1.5 N / mm² pull-off test results. According to the seasons, Concrete's age must be at least 28 days, concrete surfaces should have a maximum moisture content of 4-6%. Remove all loose and friable material, oil, paint residues, must be free from cement slurry. Large cracks and defects should be repaired in advance with **ACS MORTAR RM 40®**, or **ACS EPOXY FIX®**. Cement shell and bright screed on concrete surface should be cleaned, roughened and wiped by tools such as sanding, notching machine, tumble diamond grinding machines and forced grinding machines. All surfaces should be cleaned with industrial vacuum cleaner from dust. **ACS EPOXY PRIMER MAX®** should be primed.

Wood Surfaces: All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Should be primed using **ACS PU PRIMER®** or **ACS EPOXY PRIMER MAX®**.

Steel Surfaces: Oil and grease on the metal surface should be cleaned off by help of detergent or steam; salt and other impurities should be removed off by high pressure fresh water. After cleaning, scraping should be performed at level of 2½ as per ISO 8501-1 to get a surface profile of 70 -100 microns. After scraping the surface, must be primed with **ACS EPOXY PRIMER MAX®** or **ACS AQUA EPOXY PRIMER®**.

Textiles, Canvas, Fabrics: Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

APPLICATION METHOD

ACS HYBRID PROOF® is ready to use. may not be diluted under any circumstances. Thoroughly mix B component (resin side), with air driven power equipment until a homogeneous mixture and color is obtained. Ambient and surface temperature should be between 5 ° C and 35 ° C. In addition, application should not be done in extremely hot, rainy or windy weather. To increase the machinability of the material.Both materials (A and B sides) must be warm up to 20-25°C before application r. Should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment to the ready application surface. Both Part-A and Part-B materials should be sprayed at a minimum of 135 bar and at temperatures above 70-80°C. Adequate pressure and temperature should be maintained at all times. **ACS HYBRID PROOF®** should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance. Should be adhered to the recommended consumption on application, out of the special cases, 45 degrees with the surface to be sprayed. In outdoor applications, the system should be taken to protect with UV resistant aliphatic polyurethane topcoat with **ACS POLYURETHANE TC 470®**.

CONSUMPTION:

2,00 - 2,20 kg/m²/ 2.00 mm (Depending on the pore surface of the concrete)

TIPS TO NOTICE

- The relative humidity of air is highest % 80, Avoid application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +10°C or above +35°C.
- Surface temperature should be 3°C above the then dew point. (Please call our firm for the Ambient temperature-Am-

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bient Moisture-Dew Point table.)

- The materials to be used at the appropriate temperatures should be brought and stored in the application area 1-2 days prior to the application and enabled to adjust the ambient conditions.
- In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product, the packages should be preconditioned to +20°C - +25°C to become ready to use. Epoxy and polyurethane based floor coatings should be applied by specialists.

CLEANING OF TOOLS

Used tools and equipment must be cleaned carefully with an appropriate solvent. Once cured **ACS HYBRID PROOF®** can only be removed by mechanical means

PACKAGING

Component A weighs 200 kg in a container

Component B weighs 220 kg in a container

STORAGE

Store in original unopened package at + 10 to + 25 °C, in cool and dry place, protected from freezing. In short-term storage, a maximum of 3 pallets must be placed on top of each other and shipped with the first-in first-out system. If the storage is long time, the pallets should not be placed on top of each other.

SHELF LIFE

The shelf life is 6 months from the date of production under suitable storage conditions.

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)

