

Technical Data Sheet

ACE SP HARD 100

DESCRIPTION

ACE SP HARD is a cold applied polyaspartic aliphatic polyurea 100% solids.

Its two components react within minutes to form a continuous watertight coating of high hardness and scratch resistance, which by its aliphatic nature is UV-stable and can, therefore, be applied both indoors and outdoors without changing color or losing virtually gloss or mechanical properties over time.

PROPERTIES OF THE SYSTEM

- Excellent weather and UV resistance.
- Its high solids content allows for high-build coats to be applied in a single coat, and the drying time between coats is very fast; this allows elements treated with ACE SP HARD to be put into use, transported, or open to pedestrian and vehicular traffic in just a few hours.
- Excellent aesthetic appearance, allowing for decorative floor finishes with the addition of vinyl chips or colored quartz, and a Class 3 non-slip finish according to UNE EN 12633:2003 with mineral aggregates or microspheres.
- Low sensitivity to environmental conditions; the system cures quickly, even at low temperatures.
- Excellent anti-corrosion protection for metals with good chemical resistance.
- High hardness and abrasion resistance.
- Good resistance to common cleaning products and various chemicals.
- Fire-resistant, is classified as BFI-s1 for indoor floorings and BRoof-T1 for roofs according to UNE-EN 9239-1 and 11925-2

SCOPE

- Decorative, continuous, and hygienic flooring for hospitals, food plantes, bus stations, libraries, supermarkets, markets, cold storage facilities, etc.
- Anti-corrosion protective coating for all types of metal and concrete elements in the most aggressive marine and industrial environments.
- Painting system for wooden elements and structures.
- UV protection finish for aromatic ACE polyureas, epoxy, or polyester systems.

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COMPONENTS INFORMATION

DESCRIPTION	COMPONENT A (isocyanate)	COMPONENT B (polyaspartic resin)
Physical state	Liquid	Liquid
Solids content	100%	100%
Flash point	>100°C	38°C
Color	Transparent	Transparent/color RAL
Density	1,15 gr/cm ³	Transparent: 1gr/cm ³ Pigmented: according to color
Viscosity (Brookfield) 23°C	3500cps	1080-1480cps

SYSTEM INFORMATION

PROPERTY	RESULT
Pot life	30 minutes (Make small mixes, decant and spread the product)
Hardness (SHORE D)	78
Elongation	Max. 82%
Tensile strength	Max. 19,95 Mpa
Storage and expiration	Store between 10°C and 30°C, protected from moisture. Expiration: 12 months from manufacture.

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STORAGE AND SHELF LIVE

Store at a temperature between 10-30 °C away from moisture.

The product can be used up to 12 months after the date of manufacture if kept in its original sealed containers.

SUPPORT REQUIREMENTS

The support to be treated must have an open pore and the following minimum mechanical resistance:

-Minimum tensile strength of 1.5 N/mm².

The support must be dry, with surface moisture less than 4%, minimum capillary moisture and no water pressure. If substrate moisture is suspected, a suitable primer should be used.

It must be clean and free of rust, grease, oil, loose coatings or any contaminant that will adversely affect the adhesion of the system.

The temperature of the support must be between 10 °C and 25 °C and always 3 °C above dew point.

On new concrete or mortar, you must wait at least 28 days for total setting.

ENVIRONMENTAL CONDITIONS OF HUMIDITY AND TEMPERATURE

Room temperature must be between 8 °C and 30 °C and the relative humidity must not exceed 60% unless it does not reach dew point.

SUPPORT PREPARATION

1. Polyurea or polyurethane elastomeric membranes:

The system has direct adherence without requiring primer or special preparation on clean, dry membranes and with a temperature >3 °C above dew point. They should only be cleaned with acetone beforehand and the coating applied within the first 24 hours to avoid having to prime.

2. Concrete:

Open pores must be ensured, so mechanical treatment will be carried out with a shot blasting machine or diamond-tipped sander to prepare it to ICRI CSP 2-3 grade. After blowing and vacuuming, ACE PRIMERFLEX PLUS, ACE EPOPRIMER 52WB OR ACE EPOPRIMER 100 primer will be applied, with a dosage of 200 ml/m²; respecting the drying times, ACE SP HARD will be applied in one or more coats of 150-200 microns.

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3. Steel:

For steel applications, mechanical treatment will be carried out using shot blasting or shot peening to obtain a grade of SA 2 1/2 or white metal with a profile greater than 58 mic., and 75 mic. for permanent immersion treatments. After thorough cleaning, apply the anticorrosive primer ACE EPOPRIMER, ACE EPROPRIMER FZ or adhesion promoter ACEBOND with the ratio indicated in the HT or painting system, respecting the drying times before applying ACE SP HARD..

APPLICATION

Before application, shake each one of the components separately in its individual container, shaking at low revolutions (300-400 rpm) so as not to aerate the product.

Then mix the two components together for at least three minutes and apply the product for the next 15 minutes. Try not to make large quantity mixtures and remember that at higher temperatures the workability time decreases.

For roller application, use a sponge or synthetic type, with short hair, anti-drip or anti-splash of those commonly used for epoxy paints.

May be thinned with up to 20% butyl acetate or xylene (slower cure).

It must be applied over the polyurea waterproofing membrane on the same day of its application.

CURING TIMES

Curing times can vary depending on environmental conditions, increasing the speed of drying with increasing temperature and humidity and decreasing with increasing thickness.

Values with 200 gr/m²:

Environmental conditions	Curing to the touch	Total	Light traffic
22°C. 40% HR	1.5h	3h	3h
8°C. 50% HR	2.5 h	5h	5h

*Water contact: consult our technical service.

CONSUMPTION

ACE SP HARD can be applied at any thickness, typically 100-150 g/m² per coat.

- For floors with decorative or non-slip finishes, apply two coats of 200 g/m², sprinkling the chips, mineral aggregates, or microspheres between the two coats.

- For epoxy flooring systems, apply one coat of color at 150 g/m² with a sprinkle of non-slip aggregates and a clear coat of 200 g/m².

- Anti-corrosion treatments, depending on the coating system category, apply two coats of a minimum thickness of 150-175 microns/m².

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TOOL CLEANING

They can be cleaned with solvents (xylene, butyl acetate). Because the product dries quickly, stains containing A+B mixtures must be removed quickly with special stripping products or mechanical means.

MAINTENANCE

Daily wet scrubbing can be done with neutral PH soap products. Solvents should be avoided for cleaning as they can severely damage the product.

SAFETY AND ENVIRONMENT

ACE SP HARD contains isocyanates and is intended exclusively for professional users, who must have a handler's certificate. Before use, please consult the safety data sheet.

Ensure good ventilation in the work area. Avoid inhalation or skin contact with the product by always wearing goggles, gloves, and a suitable respiratory protection mask.

Empty containers must be handled as hazardous waste and must be delivered to an authorized waste manager, for treatment according to applicable legislation in your area. Do not pour waste into drains or rivers.

WARRANTY AND LIMITATIONS OF LIABILITY

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