



HENSOTHERM® 920 KS

PRODUCT INFORMATION

Two-pack coating system for protecting indoor and outdoor steel sections/structures – 100% solvent free

- Fire resistance rates R30 – R120, EN 13501-2 approved
- Application: open and hollow profiles
- Max corrosion protection up to \leq C5 very high
- AgBB tested, emissions class A+
- ETA 21/0475, Certifire no. CF 5994



Member of
DGNB
Deutsche Gesellschaft für Nachhaltiges Bauen
German Sustainable Building Council



APPROVED PRODUCT
CF 5994



HENSOTHERM® 920 KS is a two-pack (2K) solvent-free fire protection coating for protecting indoor and outdoor steel sections and steel structures. HENSOTHERM® 920 KS impresses with its fire resistance rates up to 30/60/90/120 minutes, its working properties such as its optimal pot life, its thin layer thicknesses, its max achievable corrosivity category up to ≤ C5 very high in the system.

Approval/classification

- ETA 21/0475
- Certifire no. CF 5994
- Max corrosion protection classification up to ≤ C5 very high

Environment

- ✓ 100% solvent free
- ✓ AgBB tested, emissions class A+
- ✓ Free of halogens, free of alkylphenol and benzyl alcohol
- ✓ Tested according to the criteria issued by the Committee for Health-related Evaluation of Building Products (AgBB) for VOC emissions from building products suitable for indoor use.

Field of application

- According to EAD 350402-00-1106 use categories X/Y/Z1/Z2, suitable for indoors and outdoors.
- According to EN 10025-1 for construction steels (designation S, but not S185), not suitable for machine steel (designation E)

Applications on sections

With fire resistance times of R30/60/90/120, this fire protection system is suitable for the following applications on steel structures:

Applications on standard R30/60/90/120 sections

- ✓ **Open sections:** beams / columns
- ✓ **Hollow sections (circular/square):** beams / columns

Performance range of the two-pack epoxy fire-protection system HENSOTHERM® 920 KS

- Indoor and outdoor applications
- One system for R30/60/90/120 workshop applications
- Thin layer thicknesses
- Application does not require change of material from R30/60/90/120
- Max corrosivity category up to ≤ C5 very high in the system (corrosion/fire protection)
- Optimised pot life and drying times for ease of application, also with suitable single-component airless sprayers
- Cleaning only during work breaks, otherwise no intermediate cleaning necessary



Packaging

Packaging for single-component airless machines: 15kg of base + 6kg of hardener
 Packaging for two-pack airless machines: 20kg of base + 20kg of hardener
 Packaging for two-pack airless machines: 200kg of base + 200kg of hardener

Packaging in small packaging for brushed repair work: 2.5kg of base + 1kg of hardener

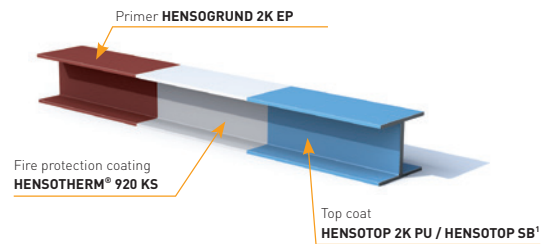
Cleaning with HENSOTHERM® V55 available as 20 litre or 200 litre container.

Coating Structure

Set-up on blasted steel sections indoors		Indoors			
		C2 high C3 low C3 middle	C2 very high C3 high C4 middle	C4 very high C4 high C5 high	≤ C5 very high R60 / R90
Preparatory blasting for surface preparation grade 2.5		●	●	●	●
Corrosion protection	HENSOGRUND 2K EP (DFT)	○	● (60 μm)	● (80 μm)	● (160 μm)
Fire protection coating	HENSOTHERM® 920 KS	●	●	●	●
Top coats	HENSOTOP 2K PU (70 μm)	○	○	●	●
	HENSOTOP SB ¹	○	○ (on request)	-	-

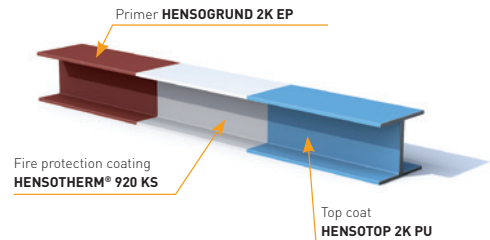
DFT = dry film thickness
 ○ = dry indoors optional (when no adverse ambient effects)
 ● = mandatory use!
 - = not possible

¹ = Only for dry indoor applications (cat. types Z2, Z1).
 Weathering for a period of max. 8 weeks.



Set-up on blasted steel sections outdoors		Outdoors		
		C2 very high C3 high C4 middle	C4 very high C4 high C5 high	≤ C5 very high R60 / R90
Preparatory blasting for surface preparation grade 2.5		●	●	●
Corrosion protection	HENSOGRUND 2K EP (DFT)	● (60 μm)	● (80 μm)	● (160 μm)
Fire protection coating	HENSOTHERM® 920 KS	●	●	●
Top coat	HENSOTOP 2K PU (70 μm)	●	●	●

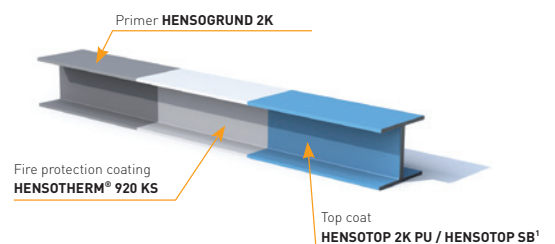
DFT = dry film thickness
 ● = mandatory use!



Set-up on galvanized steel sections		Indoors		Outdoors		
		C2 very high C3 high C4 middle	C4 very high C4 high C5 high	C2 very high C3 high C4 middle	C4 very high C4 high C5 high	≤ C5 very high R60 / R90
Preparatory sweep blasting		●*	●	●	●	●
Adhesive primer	HENSOGRUND 2K (DFT)	● (60 μm)	● (80 μm)	● (60 μm)	● (80 μm)	● (160 μm)
Fire protection coating	HENSOTHERM® 920 KS	●	●	●	●	●
Top coats	HENSOTOP 2K PU (70 μm)	○	●	●	●	●
	HENSOTOP SB ¹	○	-	-	-	-

DFT = dry film thickness
 ○ = dry indoors optional (when no adverse ambient effects)
 ● = mandatory use!
 - = not possible
 * = optional preparation with high-pressure cleaner (min. 80 °C hot water)

¹ = Only for dry indoor applications (cat. types Z2, Z1).
 Weathering for a period of max. 8 weeks.



Notes on cladding and connections

The steel components treated with this reactive fire protection coating may not be cladded: this may prevent the intumescent from foaming.

The sites connecting to other components must afford adequate protection against the effects of fire on the treated component, or the connected components must suppress the heat transferred to the treated component.

Application instructions

NOTE: For every application of reactive fire protection coating, the applicator must inform the customer in writing that the fire protection effects are ensured only when the reactive fire protection coating is maintained in a proper condition at all times, and he must specify the coating materials that may be used to repair and renew the reactive fire protection coating.

- The coating system may be processed **by trained professionals and certified companies only!**
- The coating materials Component A (base) and Component B (hardener) must present a homogeneous mixture at all times during the application.
- When each coating substance is being applied, the material, substrate, and air temperature may not fall below +15°C nor the relative air humidity exceed 80%.
- During the application, the surface temperature of the coated substrates must be at least +3°C above the dew point of the ambient air.
- The treated substrate temperature may not exceed +35°C.
- For warranty purposes, the ambient conditions must be documented in compliance with EN ISO 12944-7 during the application.

Preparing the steel sections

Uncoated sections must be blasted according to surface preparation level Sa 2.5.

Priming/galvanising

If corrosion protection requirements demand an additional primer coating for the entire system, this must be applied with **HENSOGRUND 2KEP** in advance. The same applies to galvanised surfaces with **HENSOGRUND 2K**. The galvanised components must have degassed completely prior to coating with **HENSOGRUND 2K** (blistering!) and bond damaging substances must have been removed without trace by means of sweep blasting. Please consult the respective Technical Data Sheets.

Joins, contacting surfaces, drill holes, and areas around bolted connections must be masked off with adhesive tape or magnetic plates in advance. From experience, the adhesive tape must be removed about 1–2 hours after HENSOTHERM® 920 KS has been applied.

Fire protection coating

Further details on how to apply the intumescent HENSOTHERM® 920 KS can be taken from the application guidelines.

Top coat

Top coat for outdoor applications to prevent UV effects, sporing, and chalking. The top coat is not resistant to physical effects and is used for indoor applications only for its colour effects.

The top coat **HENSOTOP 2K PU**, available in **RAL, DB or NCS colour shades**, may not be applied until **complete, thorough drying** of the last **HENSOTHERM® 920 KS** coating, i.e. no sooner than 24 hours or later than 7 days, and after a successful finger nail test.

No more than 7 days may pass between the last application of HENSOTHERM® 920 KS and the application of top coat. Otherwise, the surfaces must be roughened carefully without exception [grain size approx P 60–80].

Benefits of HENSOTHERM® 2K systems



A two-pack system for fire resistance classes R30/60/90/120: Faster application because no change of system necessary. Max corrosivity categories C5 High are possible in the system. The optimally adjusted (longer) pot life also allows working with suitable 1-component systems.



HENSOTHERM® 2K systems are applied in the workshop and are already optimally protected against mechanical stress and the weather after 24 hours' drying time. This means that steel elements that have already been coated can be stored outdoors and/or transported directly to the site of use and installed there so as to save time.



100% solvent free. Free of halogens, alkyl phenol and benzyl alcohol. AgBB tested. Ideal for DGNB sustainable building.

Excerpt from our two-pack references	Area	Fire resistance	Year
Zoo, Neuwied DE	1400 m ²	R 30	2016
Berlin Tegel Airport DE	1540 m ²	R 30	2017
Triple purpose sports hall, Passau DE	2970 m ²	R 30	2017
New school, Laufen CH	3850 m ²	R 30	2018
Lidl DK	8500 m ²	R 15	2018
City centre, Stockholm SE	15000 m ²	R 60	2018
Recreational baths, Würzburg DE	2400 m ²	R 30	2018
Multistorey car park, Husum DE	5800 m ²	R 30	2019
Toyota Lexus, Cologne DE	1500 m ²	R 30	2019
Siemens, Marburg DE	3500 m ²	R 30	2020
LVR MiQua museum, Cologne DE	15000 m ²	R 30	2020/21
Multistorey car park, Neuenburg DE	4000 m ²	R 30	2021

Our technical advisers will be pleased to assist you with your enquiries.
Further details can be downloaded from: www.rudolf-hensel.de/920KS

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