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R17	2017-01-10	1/1	KBS CHAR 21	M.S	-

## TDS R17: **KBS CHAR 21** - General description

**GENERALLY:**

**KBS CHAR 21** is used for fire protection of steel structures, concrete and reinforced concrete structures, concrete and masonry partitioning walls and in other application fields. In structural resistance-to-fire applications it provides protection against fire for up to 2 hours.

**FUNCTION AND COMPOSITION:**

**KBS CHAR 21** is a very low VOC, waterborne, high performance intumescent coating providing a very effective fire barrier thanks to high active solids content, char strength and the use of nanofillers. Fast development of a stable, low heat transfer char provides effective and long term protection to flammable and non-flammable substrates.

**COLOUR:**

White

**DENSITY:**

1.3 ± 0,05 kg/dm<sup>3</sup>

**pH-VALUE**

Approx. 7.8

**SOLID CONTENT:**

78% ±5%w/w - 67% ±5%v/v

**SPREADING RATE:**

0,55 ± 0,05mm dry film thickness with 1kg/m<sup>2</sup> wet (theoretical)

**SHELF LIFE:**

12 months in original packing and proper environment

**APPLICATION:**

Normally by airless spray. For small surfaces or retouching by roller or brush.

**WET THICKNESS PER COAT:**

Airless spray: max 1300 µm (750 µm DFT)

Brush or roller: max 500 µm (300µm DFT)

**THINNING:**

Not recommended If necessary with water max 5%

**DRYING TIME:**

8 hours - touch / 24 hours - complete

**MIN APPLICATION TEMPERATURE:**

+5°C

**MAX APPLICATION TEMPERATURE:**

+45°C

**PRODUCT N.O**

A007

**CERTIFICATIONS AND APPROVALS:**

**KBS CHAR 21** comes with European certification type approvals in Europe. For the fire protection of steel structures, assessment and classification reports are available according to EN 13381-4, for walls and reinforced concrete systems according to EN 13381-3. Classifications are in accordance with EN 13501-2. Reaction to fire classifications according to EN 13501-1 and other special application reports are also available.

**RECOMMENDED THICKNESS :**

For calculation of DFT (dry film thickness) a factor called Hp/A (heated perimeter divided by cross sectional area) is used. KBS CHAR 21 is applied as an intermediate coat in a coating system (primer, intermediate and top/finish coat). Because of the relatively low thickness of KBS CHAR 21, nice finish and anti-corrosive nature, this coating is preferred aesthetically and performance-wise. It should be noted that steel attains critical core temperature depending on the Load utilisation in the fire limit state [µ0]: 10-90 %. The design of the KBS CHAR 21 is based on classification according to EN 13501-2, and the instructions given in Eurocode 3. The lower Load utilisation in the fire limit state [µ0] is the smaller amount of fire protection paint is required. If you do not have data for [µ0] you can use 80% for columns and 66% for beams. This is on the safe side in all the static cases, but may give an over-dimensioning of the amount of paint. Therefore we recommend to obtain the real utilization for each steel section from the steel constructor (see design tables and more information at [www.kbs.se](http://www.kbs.se)).

**PACKAGE SIZE (Plastic pail / drum)**

20 kg

**PALLET COMMERCIAL QTY**

33 x 20 kg - total 660 kg

**PALLET QTY PACKING INFORMATION**

76 pails - total transport weight approx. 590 kg packed into 1 pcs cardboard box 120x80x100 cm at an EU export wood pallet.

**CUSTOMS TARIFF N.O**

38249970

**ORIGIN**

Originated European Community (EU)

**TRANSPORT REGULATIONS**

None (not dangerous goods).

**LABELING ACCORDING TO CLP (1272/2008 / EC)**

Pictograms: n/a

Signal word: n/a

Hazard: H412

Precautionary statements: P273, P501

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