

CHAR 18

Flame retardant clearcoat for fire protection of wood floorings.

CHAR 18 is a 2-component polyurethane transparent varnish providing flame retardancy to wood and wood-based substrates used for floorings. Resistant to abrasion and washing, enhances wood colour while keeping a natural aspect.

The logo for IRIS COATINGS features the word "IRIS" in a stylized, multi-colored font (blue, green, yellow, red) with a horizontal line above and below it. Below "IRIS" is the word "COATINGS" in a bold, black, sans-serif font.

CHAR 18 is used for fire protection of floors and parquets made of any type of wood, preserving their natural aspect.

CHAR 18 specifically designed for floors, has high abrasion resistance and washability as required for a parquet coating but additionally gives flame retardancy providing reaction-to-fire class Bfl-s1 with only 80 g/m².

Flame retardant coatings contain special chemicals that avoid ignition in the presence of a small flame and delay flame spread on the protected surface in the presence of a developed fire. They are used for flammable substrates and particularly for wood.

Flame retardancy and reaction-to-fire properties are related to the ability of a coating to reduce spread of flame in a fire, avoid flammable substrates to catch fire and self-extinguish flames. In commercial and industrial facilities, hotels, airports, supermarkets, schools, hospitals, cinemas, theatres, as well as in smaller wood constructions, the use of flame retardant coatings hinders ignition of fire or reduces its spread, preserving lives and property, allowing people evacuation and the safe operation of the fire brigade.

CHAR 18

DENSITY: 1,10 ± 0,05 kg/dm³ a 20°C

SOLIDS CONTENT: 57% ±5% w/w

COLOUR: transparent

GLOSS: glossy: 50 @ 60°,
satin: 15 @ 60°, matt: 4 @ 60°

TABER ABRASION: (UNI EN ISO 7784-2 :2016)
CS10, 500 g, 1000 cycles: 144 mg
CS10, 1000 g, 1000 cycles: 224 mg
CS17, 1000 g, 1000 cycles: 298 mg

STANDARD PACKING: steel can A+B
5 kg + 2,5 kg, or 1 kg + 0,5 kg

COMPONENTS: A (base) : B (hardener)
mixing ratio 2:1

SHELF LIFE: 12 months
in original packing and proper environment

SPREADING RATE: min. 80 g/m² for Bfl-s1,
or more depending on aesthetical require-
ments and substrate absorption

APPLICATION: airless or airmix spray,
roller or brush

NUMBER OF COAT: Typical application:
2 coats x 40-60 g/m²

THINNING: up to 20%
with urethane grade thinner

DRYING TIME *
2 hours - touch dry
8 hours - sandable
24 hours - complete

MIN APPL. TEMPERATURE +5°C

MAX APPL. TEMPERATURE +45°C

(*) @ +20°C and 60% RH. Drying time depends on
temperature and thickness.

TEST AND CLASSIFICATION REPORTS:

0183\DC\REA\20 CSI

0183\DC\REA\20_2 CSI

0183\DC\REA\20_3 CSI

CSI is accredited laboratory and notified body 0497

USE AND APPLICATION

CHAR 18 is formulated for flame retardant treatment of parquets and wood floorings, even subject to washing and normal abrasion.

A proper substrate preparation is necessary depending on substrate conditions, including cleaning, sanding and removal of incoherent particles and dust.

Application, by spray, brush or roller, must be done in at least 2 crossed coats. On most wood types, application requires a smooth sanding with 180-240 fine sandpaper after the first coat to remove raised fibers.

CHAR 18 is a 2-component product and shall be properly mixed right before application, stirring to obtain a perfect incorporation. Mixing ratios must be carefully observed. Pot-life must be considered, avoiding to continue application if a relevant increase in viscosity is observed. Pot-life decreases with increasing temperature.

Do not thin excessively, in particular if product reaches end of pot-life discard it and discontinue using it.

As for all coating products, during application and drying proper environmental conditions must be maintained, in particular humidity must be higher than dew-point and the presence of condensation and moisture must be avoided at all times.



CERTIFICATIONS AND APPROVALS

CHAR 18 is a flame retardant coating used for improving floor reaction to fire. All available certificates and test reports are in accordance with European standards.

Reaction to fire: **CHAR 18** is classified **Euroclass Bfl-s1** according to **EN 13501-1**. Classification tests are conducted according to **EN ISO 11925-2** and **EN ISO 9239-1** on wood particleboard according to **EN 312-2**.

Therefore, according to **EN 13238** paragraph 5.2, results apply to all wood types and wood based substrates and also to all substrates classified A1 o A2.

This performance is obtained with a minimum of 80 g/m² of flame retardant coating **CHAR 18**, which can be increased if required by aesthetic requirements.

DISCLAIMER: hough based on the results of long term testing and experience the information given here is informative only. We cannot accept any liability for use of this information and the product unless a proper check has been done of the specific application, verified by the end-user. Accurate preliminary testing and definition of an application protocol and system is highly advisable to obtain full advantage of this product.

