CHARCOAT
PASSIVE FIRE PROTECTION

CharCoat CC Cable Coating
TECHNICAL DATA SHEET

PRODUCT DESCRIPTION
CharCoat CC is designed as an Intumescent fire protection coating for electrical cables. It is a water-based latex mastic coating for interior and exterior applications specially developed to stop fire from spreading on single, grouped or bundled electrical cables.

APPLICATION AREAS
CharCoat CC is assessed as a fire protection coating for:
- Electrical cable either single, grouped or in horizontal or vertical tray
- Supporting cable structures

CharCoat CC can be applied to interior and exterior electrical cables in industrial, marine and commercial projects or where cable protection is required to avoid spread of flame.

TECHNICAL DATA

PROPERTIES	RESULT
Solids	62% by weight | 53% by volume
VOC	29.95 g/L
Color	White
Base	Water
Solvent	Free
Asbestos	Free
Mercury	Free
Plasticizer	Free
Abrasive viscoelasticity	None
Toxicity	None
Hazard	None
Smoke	Free

FEATURES AND BENEFITS
- Intumescent Coating
- Water based
- Impermeable according to FM3971
- Classified for up to 90 minute Fire Rating 750C
- Classified for up to 90 minute Fire Rating 1100C
- Low DFT (Dry Film Thickness) of 1.6mm
- Water tight / Air tight
- 100% UV Stable and weatherproof

FEATURES AND BENEFITS
- Resistant to oil, various chemicals and petrol spills
- Ageing resistant
- Highly flexible in cured form
- After completion (full cure) temperature resistant down to -40°C

DIRECTION FOR USE:
Recommended conditions
1. Material and air temperature > 5°C, humidity < 80%
2. Recommended tip size for airless spraying: 0.017" – 0.019"
3. Pressure at least 200 bar
4. Refer to complete application guide for spray units

PREPARATION BEFORE APPLICATION
IMPORTANT: CharCoat CC has to be stirred thoroughly before application
- Application by a slow running stirrer
- Application by brush, roller or airless spraying
- All cables and tray to be clean and free of dust/oils/solids

COVERAGE RATE
1. Approx. 3.0mm wet = 1.6mm dry = approx. 3.46kg/m²
2. Thinning: max. 3 % water (when required)

DRYING
1. At 20°C object temperature and 65% relative
2. Touch dry: approx. 2 hours
4. Full cure: approx. Min. 24-48 hours

CALCULATION OF COVERAGE (without wastage)
Single cable:
- d x 3.14 x 1.05 x 3.46 = kg/m

Cable bundle:
- d x 3.14 x 1.4 x 1.05 x 3.46 = kg/m

Cable bundle on cable tray:
- {(4 x h) + (2 x b) + (d x 1,4)} x 1.05 x 3.46 = kg/m

d	= diameter of cable or cable loom in m
3.14	= phi
1.05	= coefficient of spraying loss
3.46	= coverage rate kg/m²
1.4	= coefficient of increase of surface based on crotches
h	= height of cable tray in m
b	= width of cable tray in m

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PACKAGING

- 22.5 kg net weight (5 Gallons)
- Weight / gallon = 4.5kg
- Plastic pails
- Other sizes on request

TRANSPORT / STORAGE

•Transport and storage free from frost- preferably at a minimum of +5°C to a maximum of +32°C

•Opened pails must be sealed completely and 1 cup of clean water placed over the coating.

SHELF LIFE

When stored at the recommended conditions, unopened pails have a shelf life of 18 months from date of manufacture.

WARRANTY

12 months from date of manufacture

GENERAL INFORMATION

For safe handling information on this product, please refer to the Safety Data Sheet (SDS).

Use CharCoat CC in accordance with all applicable local and national regulation.

As regulations are often revised please request for the actual safety data sheet before using the product.

ADDITIONAL INFORMATION

Disclaimer:

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials used as well as to varying working conditions beyond our control we strictly recommend to carry out intensive trials to test the suitability of our products with regard to the required processes and applications. We do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention.

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PRODUCT	FIRE RATING MINUTES
CharCoat CC	up to 90 minutes (5000 - 8000v)
APPROVALS	**DESCRITION**
FM3971	1.6mm DFT - FM Approved Flame Retardant coating for grouped electrical cables - PASSED - Ampacity - PASSED - Current Carrying Capacity - NON DERATING - PASSED - Salt Water Exposure and immersion - PASSED - Dielectric Strength - PASSED - Flamability Test
IEC 60331-11*	1.6mm DFT - 90 Minute Circuit Intergrity test for cables under fire conditions - 750C
IEC 60331-21*	1.6mm DFT - 90 Minute Circuit Intergrity test for cables under fire conditions - 750C
IEC 60331-11	1.6mm DFT - 90 Minute Circuit Intergrity test for cables under fire conditions - 1100C
IEC 60331-21	1.6mm DFT - 90 Minute Circuit Intergrity test for cables under fire conditions - 1100C
IEEE-383	1.6mm DFT - Flame propagation test
ASTM E 84	1.6mm DFT - 15
ASTM E 162	1.6mm DFT - 16
ASTM D4256-83	1.6mm DFT - Radioactivity Decontamination Factor - 5.83 after 10 weeks cure time
LEED	Meets requirements for LEED credit 4.1 - 29.95g/L
UV Stabitity	Accelerated UV Stability Test - 100% UV Stable
*Cable	IEC 60331-11/21 - tested to 5000V and 8000V HV Power Cable

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