

FIRE RATED CABLE PROTECTION

CHARCOAT CC

WATER-BASED INTUMESCENT CABLE COATING FOR THE FIRE PROTECTION OF ELECTRICAL CABLES UP TO 90 MINUTES UNDER HYDROCARBON CONDITIONS



CHARCOAT

SPECIAL FEATURES

- ✔ 600-700% Typical Intumescent Expansion after 10 minutes exposure to 870°C
- ✔ Fire Rates Cable(S) up to 90 minutes at 750°C
- ✔ Fire Rates Cable(S) up to 90 minutes at 1100°C
- ✔ Water Based Intumescent Latex
- ✔ Non-Toxic / Non-Hazardous
- ✔ Lightweight, Thin-film 2 Coat Application
- ✔ Permanent Cost Effective Solution
- ✔ Zero Maintenance Required
- ✔ Single Component (Stir and Spray)
- ✔ Solvent, Mercury and Asbestos Free
- ✔ Highly Flexible in Cured Form
- ✔ 100% Uv Stable and Certified
- ✔ Non-Corrosive
- ✔ High Resistance to Chemicals and Acids



CHARCOAT CC CABLE COATING

CharCoat CC Cable Coating is a water-based Intumescent Latex coating developed for the fire and ampacity protection of single, grouped or bundled electrical cables.

Originally formulated in the 1970's to prevent spread of flame along the cable surface, CharCoat CC has become the leader in Cable Protection, stopping flame spread on the cable surface, withstanding cellulosic fires of 750°C for 90 minutes, and most importantly, Hydrocarbon fires (1100°C) on electrical cable(s) for 90 minutes at a very low DFT. The only accessible Hydrocarbon Cable Coating on the market today.

In today's market, we have extended the testing program for CharCoat CC to incorporate real world requirements that surpass standard testing. Requirements that are needed such as extended radiant testing (now 127 minutes at 957°C) for cables near furnaces. Submerged and semi-submerged cables in trench or tunnel that could be effected by water for extended periods of time and also rodent testing.

CharCoat CC is a unique acrylic latex emulsion which has excellent resistance to weathering and aging and which remains flexible indefinitely allowing for cable movement and removal. It is suitable for exterior or interior applications (QUV Certified). CharCoat CC will also prevent a short circuit within an electrical cable from starting a fire and will help identify the location of the short circuit by forming an intumescent char at the spot. Fire cannot travel under the coating to burn cable due to a lack of oxygen.

CharCoat CC forms a protective intumescent char when exposed to flame or to a temperature above 175°C. This char should be removed completely and clean cables should be recoated if intumescence should occur. There is no need to replace cable that has been subjected to fire as CharCoat CC sacrifices itself to save the cable (as long as the cable is functioning).

CharCoat CC is easily applied by brush or spray and it adheres extremely well to cables and tray, allowing for vertical or overhead application. Care should be taken to see that cables are clean and dry before application, particularly that they are free of oil, grease and dirt. CharCoat CC should be applied in 2 coats to ensure complete coverage.

With interior and exterior applications that now span over 40 years and with superior market testing, CharCoat CC will protect your assets for years to come and will always be a less expensive option to fire rated cable, cable wraps or cable ducting.



TECHNICAL DATA



CharCoat CC can also be applied to electrical cables in rooms and areas such as:

- ✓ Substations
- ✓ Cable Galleries
- ✓ Switch Rooms
- ✓ Battery Rooms
- ✓ Cable Basements
- ✓ Transformer Bays / Areas
- ✓ Motor Rooms
- ✓ Marine Applications (ships / rigs)
- ✓ Cable Gantries
- ✓ Conveyor Belts / Overlanders



For exterior cable applications, CharCoat CC also stops UV degradation of the cable sheath as it is a 100% UV stable coating (tested). CharCoat CC will last the life time of the cables with applications now over 40 years.

TYPICALLY APPLIED ON THE FOLLOWING (INTERIOR / EXTERIOR)

- : New and existing electrical cables
- : HV, MV and LV cables
- : Cable in need of repair

DIRECTION FOR USE (RECOMMENDED CONDITIONS)

- : Material and air temperature > 5°C, humidity < 80%
- : Refer to complete application guide for spray units, hoses, tips and pressures

TRANSPORT / STORAGE

- : Transport and store free from frost - preferably at a minimum of +5°C to a maximum of +30°C
- : Shelf-life of unopened pails - 18 month from date of manufacture
- : Unopened pails must be re-sealed

PACKAGING

- : 5 gallons (22.5kg)
- : Plastic pails
- : Other sizes on request

UV / ENVIRONMENTAL PROTECTION

- : Exterior application
- : Latex based for water resistant application
- : 100% UV Resistant
- : 0.5mm DFT for UV protection only
- : Salt water immersion tested and approved
- : UV protection extends cable sheath life up to 25 years



PRODUCT**FIRE RATING (Minutes)**

CharCoat CC

Up to 90 minutes

APPROVALS**DESCRIPTION**

IEC 60331-11*	1.6mm DFT - 90 Minute Circuit Integrity test for cables under fire conditions - 750°C
IEC 60331-21*	1.6mm DFT - 90 Minute Circuit Integrity test for cables under fire conditions - 750°C
IEC 60331-11	1.6mm DFT - 90 Minute Circuit Integrity test for cables under fire conditions - 1100°C
IEC 60331-21	1.6mm DFT - 90 Minute Circuit Integrity test for cables under fire conditions - 1100°C
IEC 60332-3-22	1.6mm DFT - Flammability Test
ABS	American Bureau of Shipping - Marine Certification
BS476, Part 6 & 7	1.6mm Flammability Test - Class "0"
BS6853	Smoke Index and Toxic Fumes
BS6853 D.8.4.	Smoke Density
ISO 5660	Smoke Production
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 - 19g/L
ASTM D2565	Accelerated UV Stability Test (ASTM G155) - 100% UV Stable - Solar Light Co. Inc.
ASTM D2863	LOI Value: 75 (Limited Oxygen Index)
Radiant Heat	Radiant Temp. test up to 957°C for 127 minutes - NO CHANGE
Previous Testing	1.6mm DFT - 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 - Flammability Test

SURFACE PREPARATION | APPLICATION | DRYING TIME | SAFETY AND THE ENVIRONMENT*"Please refer to the Technical Data Sheet"*

Disclaimer: The above data, particularly the recommendations for the application and use of CharCoat Passive Fire Protection products are based on the manufacturer's knowledge and experience. Due to different materials and conditions of application, which are beyond our control, we recommend in any case to carry out sufficient tests in order to ensure that CharCoat Passive Fire Protection products are suitable for the intended purpose and applications. Therefore, any liability for such recommendations or any oral advice is expressly excluded unless we have acted willfully or by gross negligence. It is always the responsibility of the installer / purchaser to guarantee correct preparation, DFT (CharCoat Coatings) and thickness (CharCoat Firestop Products) of all CharCoat Passive Fire Protection products. CharCoat Passive Fire Protection is not liable for installation or faulty installation. It is always the responsibility of the installer / purchaser to guarantee and certify the installation of materials.

CHARCOAT

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VERSION	4.0
PURPOSE/CHANGES	WARRANTY
DATE PUBLISHED	APRIL 2024