CharCoat SC120
TECHNICAL DATA SHEET

PRODUCT DESCRIPTION
SC120 Steel Coating water based intumescent coating for fire protection of both internal and external structural steelwork. SC120 is white in colour.

APPLICATION AREAS
SC120 provides effective structural fire protection, for steelwork up to 120 minutes fire rating.

FINISH
Decorative finish coating if required.

TECHNICAL DATA

PROPERTIES	RESULT
Compostion	Low VOC, Water Based
Certification	BS476 Part 21: 1987
Building Classification	C1 and C2 Environments
Specific Gravity	1.38 ± 0.02
Volume solids	68% ± 3%
VOC	1 g/L
Theoretical Covearge	2050 g/m² based on an applied @ 1.0 mm dry film thickness
Color	White

FEATURES AND BENEFITS
- Intumescent Coating.
- Low VOC.
- Water Based interior fireproof coating.
- Classified for up to 120 minute Fire Rating - Cellulosic.
- Low DFT's.

PREPARATION AND PRIMING
SC120 should be applied onto a clean, undamaged, dry and suitably primed steel surface. Certain types of primers, particularly thermoplastic primers, can cause adhesion problems and should be avoided.

CharCoat have carried out compatibility testing on a wide range of primers and can be contacted on +1 604 941 1001 for confirmation of compatibility with SC120.

Galvanized surfaces should be prepared by an application of T-wash or mordant solution followed by a compatible primer. The primer should be applied in accordance with the manufacturer's instructions.

SC120 should not be applied directly to galvanised surfaces or zinc rich primer. should be consulted for technical advice when zinc rich primers or the overcoating of existing paints are specified for use.

CharCoat should be consulted for technical advice when zinc rich primers and overcoating of existing paints are specified for use.

APPLICATION CONDITIONS:
SC120 is recommended for application and use on dry protected structural steel only.

If the coating is allowed to get wet, it is likely to be damaged – blistering and wrinkling may occur.

SC120 should only be applied when the air and steel temperatures are above 5°C and below 35°C. Relative humidity should be below 80% for successful application. Steel surface temperature should be a minimum of 3°C above the dew point.

Ensure the steel is dry and free from contact with rain or condensation during the application and drying of SC120.

APPLICATION EQUIPMENT
Airless spray equipment is recommended and should match these guidelines:
Operating Pressure: Min 2500-3000psi (175-210kg/cm²)
Tip Size: 19 – 21 thou
Fan Angle: 20° – 40°
Hose Diameter: 10 mm (3/8") (internal diameter)
Hose Length: Max. 60 metres.
Inline filters should not normally be used.

MIXING:
SC120 is supplied ready for use and must not be thinned but should be thoroughly mechanically stirred prior to use.

APPLICATION

AIRLESS SPRAYING

SC120 may be applied up to a maximum wet film thickness (WFT) of 1.2 mm in a single spray coat comprising of several quick passes. Achieving maximum loadings will depend on site conditions.

Build up thickness to achieve loading required in several quick passes. It may be possible to apply two coats of SC120 in one day particularly if the atmospheric temperature is above 20°C and relative humidity below 70%. However, before doing this,ensure that the previously applied coat is dry, particularly in the web/-flange junctions.

BRUSH/ROLLER APPLICATION

For brush application use a “layingon” technique to avoid heavy brushmarking.

Maximum wet film per coat when applied using a brush or roller is 0.6mm. A short piled roller will produce alight textured finish.

During application, measure the wet film thickness frequently with a WFT gauge to ensure the correct thickness is being applied.

To use the gauge, insert the teeth into the wet coating. The last tooth to be coated indicates the wet film thickness achieved.

In the event of over or under applications, adjustments to the loading rates of subsequent coats will be required.

DRYING TIMES

	TEMPERATURE		
WFT	**10°C**	**20°C**	**30°C**
0.7mm	4 h	2 h	1.5 h
1.0mm	5 h	4 h	3 h
1.2mm	8 h	6 h	4 h

These are times for a typical mid-range humidity and good air flow. Higher humidity, poor airflow or overnight condensation will all lengthen these times. Do not over coat if the surface is not touch dry. Check web-flange joints.

Brushing or rollering adds about 20% to drying time (compared to spraying).

- Drying times are doubled at 5°C or at over 75% relative humidity.
- Final drying time before topsealing is a minimum of 16 hours.
- These figures are based on constant conditions, fluctuations up or down will give

variations to the drying time. If overnight condensation causes wetting a further full drying period should be allowed.

APPLICATION ADVICE

The following instructions are for on-site application only. For off-site application, refer to CharCoat. Ensure that:

- The primer is compatible with SC120 and has been applied correctly.
- The over coating period for the primer has not been exceeded.
- The correct primer is used for galvanised steel.
- All damage to the primer has been repaired & re-primed.
- Site and weather conditions are within specification.
- SC120 has been stored correctly.
- Surface is clean, dry and free from contamination.
- Correct spray equipment is available, if appropriate.
- Application instructions have been read prior to commencement of work.
- Ensure different coatings are not applied on the same section of steel.
- Equipment should be clean and free from contaminants or dried material. we advise the use of Wet film gauges.

CLEANING

Pump, mixer and hose should be cleaned with water only.

TOPCOAT REQUIREMENTS

Once DFT’s have been achieved as specified, a topcoat can be applied if required for colour. Ensure the SC120 is completely dry before applying the top seal.

MAINTENANCE AND REPAIR

Damaged areas should be abraded back to a sound surface. The surface should then be clean and dry before reapplying. SC120 may be used for repairing scratches and chips. Once repaired topseal should be re-applied.

Refer to CharCoat Maintenance Instructions.

HEALTH AND SAFETY PRECAUTIONS

Safety data sheet (SDS) must be read and understood before use.

PACKAGING

- 25 kg net weight
- Steel pails
- Other sizes on request

TRANSPORT / STORAGE

•Transport and storage free from frost- preferably at a minimum of +5°C to a maximum of +35°C

SHELF LIFE

When stored at the recommended conditions, unopened pails have a shelf life of 6 months from date of manufacture.

GUARANTEE / WARRANTY

Please refer to our full Terms and Conditions of sale.

No liability can be accepted for the information provided in this document although it is published in good faith and believed to be correct. CharCoat Passive Fire Protection reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.

Head Office
PO Box 18112, Port Moody BC V3H 4H2 Canada
Tel:+1 604 941 1001 | mail@charcoat.com

Partners:
Australia | Indonesia | Malaysia | Thailand | South Africa | Saudi Arabia | China | Mexico

CHARCOAT
PASSIVE FIRE PROTECTION