

# FS-Chem™ 200

*Chemical Resistant Epoxy Floor Coating*

## DESCRIPTION

FS-Chem™ 200 is a 100% solids, low viscosity, fast-setting, two-component epoxy floor coating that has a high level of chemical and abrasion resistance.

## WHERE TO USE

FS-Chem™ 200 is recommended for use in areas with moderate to heavy vehicular traffic and where there is exposure to chemicals. The product is recommended for use in warehouse facilities, foundries, chemical facilities, and processing areas, refineries, pulp and paper plants, operating rooms, manufacturing plants, airline hangars, containment areas and any areas requiring protection against chemicals, petroleum based lubricants and solvents.

## BENEFITS

- 100% solids, with low odour, zero VOC's
- Fast setting and easy to apply
- Good gloss and colour retention
- Excellent bond to concrete
- Low viscosity with excellent flow
- Water and chemical resistant
- Resistance to battery acid
- Superior wear resistance
- Resistant to water spotting
- Available in clear and variety of standard colours

## HANDLING PROPERTIES

Mix Ratio, by volume	2 parts A: 1 part B
Viscosity (Mixed) @ 23°C (74°F)	800 cps
Solids Content	100%
Mixed Density	1.14 kg/litre (9.5 lb/US gal)
Pot Life @ 23°C (74°F)	20 minutes
Thin film set time @ 23°C (74°F)	8 hours
Foot traffic @ 23°C (74°F)	12-16 hours
Vehicular Traffic @ 23°C (74°F)	16-24 hours
Full Cure and Maximum Resistance	7 days

## DATA – CURE FILM

Tensile Elongation (ASTM D638-86)	10% @ break
Tensile Strength	28 MPa (4000 psi)

(ASTM D638-86)	
Hardness (Shore D Scale)	82
(ASTM D2240-86)	
Abrasion Resistance (ASTM D4060) Taber Abrasion, C17 wheel, 1000 cycles	79 mg loss
Impact Resistance (ASTM D-2794)	pass 160 in./lb.

## SURFACE PREPARATION

FS-Chem™ 200 should be applied over clean, sound, dust free surfaces. For best results, surface should be prepared as follows:

### CONCRETE:

Shot blasting or equivalent to remove surface laitance, curing compounds or form oils. Concrete should be minimum 28 days old or have 3% or less moisture content. Moisture content can be determined using test method ASTM D4263.

Prime with FS-Coat™ 100 when the concrete substrate is dry.

### AREA PREPARATION

For optimal performance, both the coating and substrate should be maintained at 18° to 30° (60 to 86°F) for 24 hours prior to beginning work. The same temperature range should be maintained during mixing, application and cure.

Application in direct sunlight and rising surface temperatures may result in blistering of materials due to expansion of entrapped air or moisture in the substrate. Concrete that has been in direct sunlight must be shaded 24 hours prior to application and remain shaded until after the initial set.

## **MIXING**

The mixing equipment used to mix the coating must be clean and free of any contaminants that may be present in the equipment from previously used products. Mix component A first to eliminate the possibility of settlement. Pour all of the liquid from Part A and Part B into the mixing container. A 'Jiffy Mixer' or a mud mixer blade on a slow speed drill is the preferred method of mixing. Mix the blended components for 2 minutes.

## **APPLICATION**

Pour a workable amount of the mixed material on to the prepared substrate and spread it evenly over the surface with a flat squeegee. Using a lint free 5 mm nap roller, back roll the applied material to provide an even coat. Care should be taken not to over roll the material as air may become entrapped in the coating. Two coats are recommended, on prime coat and one topcoat. If a non-slip sanded surface is required, a properly graded, dry, contaminant free grit should be broadcasted on to the surface and back rolled to encapsulate the aggregate into the coating. Apply the second coat in the same manner as the first. Allow to cure thoroughly before exposing to chemicals or continuous traffic.

## **LIMITATIONS**

- \*Do not apply FS-Chem™ 200 if the substrate and ambient temperatures are below 10°C (50°F)
- \*Do not apply the topcoat less than 8-10 mils as an orange peel finish may appear or bubbling may occur due to insufficient material to self level.
- \*Do not leave mixed material (Part A & B together) in the container for extended amount of time; it will harden and warm up and smoke.
- \*Not recommended for areas subjected to steam cleaning, harsh chemicals or heavy impact.
- \*Do not use over existing floor without testing both the intercoat adhesion as well as the adhesion of the existing floor to concrete.
- \*Not recommended as a water-proofing coating in suspended boiler rooms or commercial parking garages.
- \*Do not apply in areas where the humidity is greater than 85%.
- \*May discolour under direct constant exposure to UV, and due to some chemical exposures.
- \*Do not use on slab-on-grade without vapour barrier.

## **PACKAGING**

- 3.79 litre/1 U.S. gallon units
- 11.4 litre/3 U.S. gal. units
- 56.7 litre/15 U.S. gal. units

## **COVERAGE**

Based on 10 mils thickness per coat:  
4 m<sup>2</sup>/litre (160 ft<sup>2</sup>/U.S. gallon)

NOTE: A minimum of 2 coats is required. (One prime coat and one topcoat)

## **CLEAN UP**

Clean all equipment and installation tools immediately with xylene.

## **SAFETY PRECAUTION**

Consult the Materials Safety Data Sheet (MSDS) for specific instructions.

## **STORAGE**

Stored in a heated warehouse. Do not freeze.

## **SHELF LIFE**

2 year from the date of manufacture if kept in original unopened containers.