



FEDERAL INDUSTRIAL LININGS

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REF: FCTGS
ISSUE DATE: 21/07/2020
REV: 02

TECHNICAL DATA SHEET

FEDCHEM - TGS

DESCRIPTION

FedChem TGS is a two component solvent free epoxy resin coating.

It is a purpose specific coating with exceptional chemical resistance against all petroleum products as well as dilute acids and alkalis, aliphatic solvents and sea water. It can be used as a primer, mid coat and final coat in atmospheric and submerged conditions. **FedChem TGS** can be applied to metal & concrete substrates.

PRINCIPLE USES

FedChem TGS is intended as an internal coating or external primer for tanks, hoppers chutes and pipes such as chemical storage, waste water, grey water, process water, concrete bund areas, and effluent tanks.

This coating has good resistance to high temperature & corrosive chemical products in the Agricultural, Mining, Petro-Chemical, Marine, Waste-Water, Military, Construction, Paper & Pulp, & Power Generation industries, as well as many other industries.

PERFORMANCE DATA

Description

Results

Pot Life (Minutes)	40 min (25°C)
Mix Ratio	2 : 1
Specific Gravity (g/ml)	1.3
Touch Dry (Hours) @ 25°C	4 hrs
Open Time / Over Coating Time @ 25°C	8 - 24 hrs
Hard Dry (Hours) @ 25°C	12 hrs
Walk on Dry (Hours) @ 25°C	24 hrs
Full Cure @ 25°C	7 days
Kit Size	15lt
Volume Solids	100%
Theoretical Coverage (m²)	2m² p/lt @500µm DFT
Recommended Total DFT	500µm total DFT (2 or 3 coats of 165µm to 250µm each)
Service Temperature	Atmospheric 90°C / Submerged 50°C
Shelf Life	12 months

ADVANTAGES

- Easily applied by brush (stripe coating only) & airless spray
- Good chemical resistance
- Good resistance to high temperatures
- Can be used internally for direct burial tanks & pipelines
- Adhesion promoted – no primer required on mild steel if grit blasted to Sa 2½ (ISO 8501-1)

SURFACE PREPARATION

Mechanical preparation of the steel substrate is important before application of **FedChem TGS**. The substrate should be structurally sound and free of oil, dust and debris, grease, paint, corrosion deposits, laitance or other surface deposits. De-Grease substrate with **FedGuard 999** prior to grit blasting if required.

FedGuard 999 also acts as a rust inhibitor to prevent flash rust for up to 4 days after grit blasting.

Metal surfaces should be prepared by grit blasting to Sa 2½ (ISO 8501-1) – if grit blasting is not possible a suitable surface tolerant primer (**FedPrime STE**) is required (available from Federal Industrial Linings).

On concrete surfaces **FedPrime MC808 Primer** must be used. The surface should be prepared by grit blasting or as per standard practice (mechanical grinding or acid etching) to expose aggregate surface or to achieve the necessary cleanliness & roughness prior to application of **FedPrime MC808 Primer**. Any porous or absorbed areas still showing after priming applications, should be primed again.

MIXING

Premix base (Part A) and shake hardener (Part B) to disperse any settlement. Add all of Part B to part A and mix using a mixer with a mixing paddle at medium speed for 2-3 minutes until both components have fully dispersed and is homogenous. Ensure to rotate the mixer inside the container and into the corners of the container. A max of 5% **FedThin Epoxy thinners** is advised only if required. Only mix full packs.

APPLICATION

Apply **FedChem TGS** to the total recommended thickness of 500µm (2 or 3 coats of 165µm to 250µm each) using an airless sprayer or brushes (for stripe coating only) to a cleaned and prepared surface. A written specification always supersedes any application guideline. Apply subsequent coats within 8 to 24 hours after application. Should the over coating time be exceeded roughen the surface & wash the coating off with high pressure fresh water or solvent wipe to remove any surface salts & deposits prior to over coating.

CLEANING

Clean hands and skin immediately after use with industrial hand cleaner.

Clean tools and equipment immediately after use with **FedThin Epoxy Thinners**, or **FedClean 701** equipment cleaner.

LIMITATIONS

- Application temperatures between 10 and 40°C.
- Max service temperature is 90°C dry & 50°C submerged.
- Avoid excessive application.
- Avoid contact with skin.
- Do not release into sewer or surface water.

STORAGE AND STABILITY

Both **FedChem TGS** Part A and Part B have a shelf life of 12 months when stored in unopened containers in a cool, dry place. Failure to do so will result in a reduction of shelf life.

SAFETY AND HANDLING

FedChem TGS contains hazardous chemicals. Use only with adequate ventilation. Avoid breathing of vapours and prolonged or repeated skin contact. Protective clothing and gloves should be worn when handling this product. All sources of ignition should be removed. If exposed, eyes should be well flushed with water for 15 minutes and medical attention must be sought instantly.

This product is for professional use only. The applicators and operators must be trained, experienced and have the ability and equipment to apply the coatings correctly and according to specification. Applicators and operators must use the appropriate PPE when using this product. The safety procedures applicable to the handling of chemical materials should be read, understood and rigidly adhered to.

The information contained in this bulletin is, to the best of our knowledge true and accurate, but any recommendations or suggestions which may be made, are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.