CS 2725

EPOXY BONDING COMPOUND

Technical Data Sheet

Description

CS 2725 is an epoxy cement originally designed for metal repair and hull smoothing on rough or pitted metal surfaces. Because of its excellent adhesion to a variety of other materials, it and can also be used for repairs to concrete.

CS 2725 has very low shrinkage and is ideally suited for repairing spalled and cracked areas in concrete, plaster, stucco, stone, slate, wood, and tile. It may also be used as a mortar for ceramic tile, stone work, block and brick, and as an adhesive in fastening decorative masonry, such as was hangers and identification numbers.

- Two-component epoxy cement
- Room temperature cure
- Excellent adhesion to steel, aluminum, concrete, clean wood, and other materials without a primer
- Uncured CS 2725 is a non-flowing material easily applied to surface areas with a trowel, spatula or putty blade.
- CS 2725 is qualified to MIL-PRF-24176, both Types I and II.

MIL-PRF-24176, for hull and superstructure fairing and smoothing compounds, has two Types. Type I cements are intended to be resistant to alkali (strong base). They are approved for general use to fair, smooth or fill metallic surfaces that have become worn, pitted, corroded or misaligned and for application in way of cathodic protection (sacrificial anode and impressed current systems).

MIL-PRF-24176 Type II cements are not required to be alkali resistant; those should only be used in areas not affected by cathodic protection.

CS 2725 is qualified to both Types. When ordering, please note if the material requires only one Type to be present on the label. Contact Sales for additional information.

The following technical information and data are typical for the material but should not be used for specification or acceptance purposes. Testing was performed in accordance with MIL-PRF-24176.

Typical Performance Properties

Cured 14 days at 77°F (25°C) and 50% relative humidity

Specific gravity	1.8
Ultimate hardness	80D
% solids	99%
Compressive strength 5,500 psi (39 MPa) required	12, 000 psi (82.7 MPa)
Shrinkage	0.25 max

Typical Application Properties

At 77°F (25°C) and 50% relative humidity

Color	
Base	White
Curing agent	Gray
Mixed	Light Gray
Mix ratio	
By volume	50:50 (base/curing agent)
Consistency	Non-flow mastic
Pot life at 70°F (21°C)	2.5 hours
Pot life at 90°F (32°C)	2 hours
Cure	Complete by 24 hours
Hardness (55D minimum required)	60 – 90 D at 72 hours

Surface Preparation

To obtain good adhesion, surfaces must be free of all traces of oil, wax, grease, dirt or other contaminants including cement dust, bond-breakers, rust, mill scale, and paint. Depending on the surface, sandblasting or grinding may be appropriate.

If solvent cleaning is appropriate, a progressive cleaning process is recommended. Use an appropriate solvent (such as DS 108) and lint-free AMS 3819 cloths. Pour solvent on the cloth to keep the solvent supply clean. Clean a small area at a time and wipe the surface dry with a second clean cloth. See SAE AIR 4069 for additional information on surface preparation.

On surfaces like concrete, cement dust, alkalis, efflorescence, dirt, and some paints may be removed by washing with one part of muriatic acid and eight parts of water. Acid cleaned surfaces should be neutralized by a basic wash such as household ammonia then rinsed with fresh water and allowed to dry prior to application of CS2725.

Mixing Instructions

CS 2725 base and curing agents are matched and tested together; do not mix lots. Mix according to the indicated mix ratios; using the incorrect ratio can affect the sealant properties and voids the warranty. Do not thin the material with solvents. If a lower viscosity is needed, warm the CS 2725 gently, no higher than 140°F (60°C); however, heating will significantly reduce the pot life.

CS 2725 is supplied in pre-measured kits, to be blended together in their entirety. If the full kit is not needed, first mix each component separately to ensure the proper dispersion of the ingredients in that component. Then blend measured volumes of parts A and B in a 50:50 ratio together and stir thoroughly. A mechanical mixer may be used with speed below 180 rpm. Ensure mixing uniformity by frequently scraping container sides and bottom.

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If a non-slip texture is desired, aggregate with a mesh size of 40 – 80 are recommended. If the aggregate additives are used only to increase viscosity and add body, mesh sizes finer than 100 are recommended.

Application

CS 2725 is easily applied with a trowel, spatula or putty blade. To smooth, add small amounts of water to the surface of the epoxy to remove the tack. CS 2725 may be applied to cracks or cavities using a caulking gun, then smoothed with a blade, if required. As noted above, if a lower viscosity material is needed, warm the CS 2725 rather than thinning with solvent. Again, this will reduce the pot life.

Curing

Increasing the temperature, no more than 140°F (60°C) decreases the work life and cure time. Reducing the temperature increases the work life and slows the cure. Work life can also be extended if the mixed material is removed from the container and spread in a thin film on the desired surface. Consult Technical Service for more information.

Clean up

Cured epoxy materials are difficult to remove. Cleaning tools and other surfaces is best done when the material has not yet cured. For fresh material, we advise SOCOMORE DS 108, DIESTONE DLS or MEK. Commercial epoxy strippers are required to removed cured CS 2725.

Storage

Unmixed CS 2725 has a shelf life of at least 12 months from date of manufacture when stored at 75°F ± 9°F (24°C ± 5°C) in the original, unopened package.

Packaging

CS 2725 is available in cans and sectional plastic kits. Bulk packaging may be available; contact Sales.

Health and Safety

Before using this material, read and understand the Safety Data Sheet (SDS) as it includes information on health, physical, and environmental hazards, as well as handling precautions and first aid recommendations. SDSs are available upon request.

Emergency Contact Chemtrec 800-424-9300
Outside North America 703-527-3887
Keep out of the reach of children
For industrial use only

Rev. April 1, 2025

This technical data sheet replaces and cancels the previous one.