

UT-X/FE[®] POWDER ultrasonic couplant

ENVIRONMENTALLY BENIGN



UT-X/FE Powder is an environmentally benign couplant concentrate useful for flaw detection and thickness gaging applications where ferrous corrosion inhibition is required. It performs well and retains viscosity on salt caked boiler tubes, corroded pipe, structural steel, steel billets, welds and ship plate.

UT-X/FE Powder

UT-X/FE Powder is a cost effective concentrate that is mixed with water at the inspection site. The compact and lightweight packets are easy to transport to distant sites or store for unanticipated shortages as emergency couplant. UT-X/FE Powder incorporates a ferrous corrosion inhibitor, a preservative, a viscosity building polymer and ease of mixing in a pre-measured packet.

Temperature Operating Range

32° to 120°F (0° to 49°C) in standard tap water
Can be winterized to -20°F (-29°C)

Benefits

- Mild corrosion inhibition for cast iron and steel
- Minimal air bubbles: two packet system permits de-airing after polymer addition
- Provides fast, lump-free mixing
- Environmentally benign
- Economical: concentrated to reduce shipping costs and storage space requirements
- No dyes, fragrance, glycerine-will not stain clothing
- Low skin irritation potential

Removal

The polymer (thickening agent) in UT-X/FE Powder will form a film if allowed to dry on the part. If complete removal of couplant is required, do so before the couplant has dried with a water rinse or a water and brushing combination. If allowed to dry, and a film forms, it can be removed by pressure washing, immersing the part in water until the film rehydrates and can be washed or brushed off, or wire brushing.

Corrosion Inhibition

A basic premise in NDT is that it must be truly nondestructive. The couplant must not cause detrimental metallurgical damage to the part through corrosion. Sonotech has developed a sensitive ferrous corrosion test and rating system for our couplants that evaluates both surface and crevice corrosion.

- UT-X/FE contains a ferrous corrosion inhibitor with a relative effectiveness rating of 40 and is compatible with most composites and metals. Ferrous Corrosion Characteristics Chart available at <http://www.sonotech-inc.com>.
- If ferrous corrosion is a high level of concern, Sonotech recommends using a prepared couplant, such as Echogel or Sonotrace, as hand mixing in may not provide homogeneous mixing.

Properties¹

Total Halogens..... <50 ppm
Sulfur..... <50 ppm
Viscosityvariable by altering water amount
Mix UT-X/FE Powder with water to obtain the viscosity required for the application.

pH ~9

¹When mixed with typical municipal water at recommended levels.

Packaging (nominal amount of prepared gel)

1-gallon packet
5-gallon packet

Shelf Life

Three (3) years in an unopened packet stored at constant room temperature and out of sunlight. A prepared container of UT-X/FE Powder, properly sealed and stored, has an approximate shelf life of one month.



774 Marine Drive, Bellingham, WA 98225-1530
sonotech@sonotech-inc.com

360-671-9121
Order Phone: 800-458-4254

Fax 360-671-9024
Order Fax: 800-730-9024

www.sonotech-inc.com

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