UT-X® POWDER ultrasonic couplant

ENVIRONMENTALLY BENIGN

UT-X Powder is couplant concentrate useful for flaw detection and thickness gaging applications where ferrous corrosion inhibition is not a concern. UT-X Powder retains viscosity on salt caked boiler tubes, corroded pipe, structural steel, steel billets, plate and welds.

UT-X Powder

UT-X 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 Powder incorporates a weak ferrous corrosion inhibitor, a preservative, a viscosity building polymer and ease of mixing in a pre-measured packet. To aid in eliminating air from the hand mixing process, UT-X is packaged in two packets which allows air to escape prior to adding the second packet and thickening into a gel.

Temperature Operating Range

32º to 120ºF (0º to 49ºC) in standard tap water
Can be winterized to -20ºF (-29ºC)

Benefits

- 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 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.

Shelf Life

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

Environmental Awareness

Sonotech developed environmentally benign couplants to minimize impact on the environment. UT-X Powder contains biodegradable materials, safe for disposal. The likelihood of skin irritation has been reduced through the use of cosmetic grade ingredients. Environmentally benign couplants are designed specifically for applications where couplant may be removed by weather, or could come into contact with animals, humans, and waterways.

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 Powder contains a weak ferrous corrosion inhibitor with a relative effectiveness rating of 10 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 the field may not provide homogeneous mixing.

Properties[1]

Total Halogens..... <50 ppm
Sulfur..... <50 ppm
Viscosity .....variable by altering water amount
Mix UT-X Powder with water to obtain the viscosity required for the application.
pH ..... ~9
[1] When mixed with typical municipal water at recommended levels.

Packaging (nominal amount of prepared gel)

1-gallon packet
5-gallon packet

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