

SONO 600 high temperature ultrasonic couplant



ENVIRONMENTALLY BENIGN

Sono 600 provides extended temperature and non-drying coupling for flaw inspection, thickness gaging and acoustic emission testing in petrochemical, power generating, food processing and pharmaceutical industries.

Temperature Operating Range

Thickness gaging: 0° to 600°F (-18° to 315°C)

Flaw inspection: 50° to 500°F (10° to 260°C)

Benefits

- Excellent corrosion inhibition on all metals
- Very slow drying; allows for long-term coupling without reapplication
- Economical alternative to silicone based couplants
- Biodegradable formula suitable for food processing equipment inspection
- Available as a thick fluid or a gel

Safety

- Non-toxic, non-irritating, biodegradable
- Smokes less at elevated temperatures than most high temperature coupling materials
- Contains NO water, glycerine, solvents, petroleum products, and NO perfluorocarbons or fluorinated material, which can cause adverse health effects at high temperatures

Removal

- Remove excess couplant by wiping with disposable rags or paper towels. For removal using aqueous solutions (non-solvent based): consider: Shocon, Aqueous Reactivator, Power Purge, Citrikleen XPC, CIS Resolve and ZEP-EZ citrus turpentine products. For more complete removal of residual films using solvents, select from the following: Aliphatic hydrocarbons, Aromatic hydrocarbons, Higher alcohols, Isoparaffins, Higher Keytones, Ethers.

Properties

¹ At ambient temperature.

Viscosity¹

Fluid.....~2,500 cps (Brookfield LV #3 @ 30 rpm)

Gel.....~500,000 cps (Brookfield LV #5 @ 1.5 rpm)

Velocity¹.....1.50± .05 mm/μsec

Acoustic Impedance¹.....1.35 to 1.40 MRayls

Auto Ignition temperature...935°F (501°C)

Cleveland Open Cup Flash Point...435°F (224°C)

Packaging

2-oz (50 g) tube
quart (liter)

4-oz (100 g) tube
gallon (4-liter)

Chemical Analysis and Certification

Independent laboratory analysis of Chlorine and Sulfur referencing ASTM procedures is provided at no additional charge.

Chemistry

Total Halogens.....<150 ppm

Sulfur.....<150 ppm

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.

- Sono 600 contains a ferrous corrosion inhibitor with a relative effectiveness rating of 100 (*refer to Sonotech's Quantitative Ultrasonic Couplant Comparison Chart - call for a copy*) and is compatible with most composites and metals.

Acoustic Coupling

Sono 600 is manufactured under vacuum at elevated temperature, then processed through a high speed colloid mill to eliminate entrapped air and assure uniformity.

Small air bubbles are detrimental to the performance of high temperature couplants, as bubbles expand rapidly when the couplant temperature rises during use.

High Temperature Guidelines

- A couplant's upper temperature range for short duration thickness gaging is higher than when used for flaw detection.
- When testing on vertical or overhead surfaces, a thicker grade of couplant is likely to stay in place, but a thinner grade generally performs better on flat surfaces.
- No Sonotech couplant contains perfluorocarbons; thus "polymer plume fever" is not an operator hazard.

Flash Point and Auto Ignition

Sonotech provides the flash point and auto-ignition temperature for each high temperature product.

- The **Flash Point** of a product is the lowest temperature at which vapors arising from the product will ignite momentarily when exposed to a flame.
- **Auto Ignition** is the temperature at which a substance ignites without other sources of energy. Please reference the MSDS on the reverse.



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