

# SONO 600 high temperature ultrasonic couplant

ENVIRONMENTALLY BENIGN

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

## 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
- 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, silicones, petroleum products, and NO perfluorocarbons or fluorinated material, which can cause adverse health effects at high temperatures

## 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

## Properties

<sup>1</sup> At ambient temperature.

### Viscosity<sup>1</sup>

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

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

Velocity<sup>1</sup>.....1.50± .05 mm/μsec

Acoustic Impedance<sup>1</sup>.....1.35 to 1.40 MRayls

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

## Packaging

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

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

## Acoustic Impedance

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.

Two general methods of flash point testing are called closed-cup and open cup. The closed cup method (Pensky-Martens) prevents vapors from escaping and therefore usually results in a flash point that is lower than in an open cup (Cleveland) test. The system for flash point determination for medium to high temperature products (140°F to 680°F/60° to 360°C) utilizes the Pensky-Martens closed cup test.

- **For the flash point of Sono 600, please reference the MSDS on opposing side.**

Distributed By:

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