

SONOTEMP[®] extended range ultrasonic couplant



Sonotemp is useful in high temperature thickness gaging and flow metering where elevated temperature, curved or very rough surfaces, or presents difficulty coupling sound and maintains paste-like viscosity throughout its effective operating range. Sonotemp is our highest acoustic impedance high temperature couplant.

Temperature Operating Range

Thickness Gaging 0° to 700°F (-18° to 371°C)

Flaw Inspection: 30° to 600°F (-1° to 315°C)

Benefits

- Maintains paste-like viscosity throughout its effective operating range for long time frames.
- Resists drying at moderately high temperature, allowing long-term coupling without reapplication.
- A good choice for long-term flow metering within the temperature range.

Safety

- Non-toxic, non-irritating
- Contains NO perfluorocarbons or fluorinated material, which can cause adverse health effects at high temperatures

Removal

- Can be removed with detergent and water

Chemical Analysis and Certification

Independent laboratory analysis of Chlorine and Sulfur by batch number referencing ASTM procedures is available upon request for an additional charge.

Total Halogens..... <100ppm

Sulfur..... <50ppm

Properties

Viscosity¹

Paste.....>4,000,000 cps

(Brookfield LV #5 @ 0.3 rpm)

Velocity¹..... 0.65±.05

mm/μsec

Acoustic Impedance¹..... 1.55±.05 MRayls

¹ At ambient temperature.

Extreme 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 thinner grade generally performs better on flat surfaces.
- Sonotech couplants do not contain perfluorocarbons; thus "polymer fume 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° to 680°F/60° to 360°C) utilizes the Pensky-Martens closed cup test.

Auto Ignition temperature.....1065°F (574°C)

Cleveland Open Cup Flash Point.....635°F (335°C)

Packaging

2-oz (50 g) tube

4-oz (100 g) tube

quart (liter)

gallon (4-liter)



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