

SONOTRACE[®] ultrasonic couplant

Sonotrace is a moderately priced, ambient temperature water-based couplant for flaw detection and thickness gaging where Chlorine, Sulfur and low melting point metals must be kept to a minimum and glycerine is to be avoided.

Temperature Operating Range
25° to 190°F (-4° to 88°C)

Benefits

- Contains humectants to retard drying
- Offers good wetting ability and ferrous corrosion resistance
- Maintains a good price to performance ratio
- Does not contain glycerine

Sonotrace is available in four formulations:

- **Three viscosity grades: 20, 30 and 40**
- **Sonotrace UV:** Contains an ultraviolet fluorescent tracer that assures complete coverage and overlap as well as complete removal when observed with a black light. Sonotrace UV is helpful where inspection coverage requires review by governing body or management using fluorescent tracer properties.
- **Sonotrace UVG:** Contains a daylight green tracer visible with the naked eye or a black light.
- **Sonotrace Bright:** Contains additional pigment for inspections that require a high visibility couplant.

Safety

- Non-flammable and non-irritating
- No silicones, cellulose, or petroleum distillates
- No heavy metals incorporated into formula

Removal

- Water soluble; easily removed with water

Chemical Analysis and Certification

Independent laboratory analysis of Chlorine and Sulfur referencing ASTM procedures is furnished with each shipment at *no additional charge*.

Acoustic Transmission

Optimal transmission requires that an ultrasonic couplant have no air bubbles that can reflect, scatter, and attenuate sound waves. Sonotech's unique processing eliminates couplant air bubbles.

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.

- Sonotrace contains a ferrous corrosion inhibitor with a relative effectiveness rating of 70 (refer to Sonotech's Quantitative Ultrasonic Couplant Comparison Chart - call for a copy) and is compatible with most composites and metals.
- Sonotrace meets Boeing Specifications BAC 5698 and BAC 5980.

Chemistry

Sonotrace 20, 30, 40 & Sonotrace UV
Total Halogens.....<50 ppm
Sulfur.....<50 ppm

Sonotrace UVG and Sonotrace Bright
Total Halogens.....<50 ppm
Sulfur.....<100 ppm

Properties¹

Viscosity
Grade 20 (low).....~37,500 cps
(Brookfield Helipath Spindle E @ 1.5 rpm)
Grade 30 (medium).....~65,000 cps
(Brookfield Helipath Spindle E @ 1.5 rpm)
Grade 40 (high).....~125,000 cps
(Brookfield Helipath Spindle E @ 1.5 rpm)
Velocity..... 1.50[±].05 mm/μsec
Acoustic Impedance Gr. 20.....1.60[±].05 MRayls
pH7.8[±].5

¹At ambient temperature.

