

Sono 1100

HIGH-TEMPERATURE ULTRASONIC COUPLANT 高温超声耦合剂

Sono 1100 provides coupling for high-temperature thickness gauging and will maintain acoustic coupling at high temperatures beyond 15 seconds to give ample time to obtain thickness readings. In most cases, the signal strength increases with time to the point of the couplant's thermal decomposition.

Sono 1100为高温测厚提供耦合作用并可以在高温下保持超过15秒的声学耦合以便有足够的时间得到厚度的读数。大多数情况下,信号会随着时间的增加而增强直至耦合剂的热分解点。



BENEFITS 优势

- Extended open time window for longer inspections or to optimize thickness readings at high temperatures
延长检测的窗口时间,优化高温下测厚结果的读取
- Medium viscosity paste
中等粘度膏状
- Non-toxic, non-irritating formula
无毒无刺激配方
- Excellent corrosion inhibition
卓越的防腐蚀性

APPLICATIONS 应用

Defect location: subsurface
缺陷位置: 表面

Ideal for 适用于

- Thickness gauging 测厚
- Corrosion testing 腐蚀检测
- High temperature ultrasonic testing 高温超声检测

SPECIFICATIONS 符合规范

- API
- ASME
- AWS

USE RECOMMENDATIONS 使用推荐

NDT Method 无损检测方法	Ultrasonic Testing 超声检测
Required Equipment 设备要求	UT equipment, transducer 超声检测设备, 传感器
Usage Temperature 使用温度 [†]	371 - 413°C
Storage Temperature 储存温度	10 - 30°C
Compatibility 相容性	Most metals 与大多数金属相容

[†] Recommended temperature based on Flash Point and Auto-ignition Temperature. In areas where flame or other ignition source may be present, or in applications where vapors may be confined in an enclosed or semi-enclosed area, these products should not be used above the flash point temperature.

推荐温度是基于闪点和自然温度所得,在有明火或点火源存在的区域或蒸汽限制在封闭或半封闭区域的情况,这些产品不能被用在高于闪点温度的条件下。

PROPERTIES 属性

Appearance 外观	Opaque paste 不透明膏状
Color 颜色	Beige 米黄色
Viscosity 粘度	Medium paste 中等粘度膏状
Silicone 硅	Yes 含有
Glycerin 甘油	No 不含
Propylene Glycol 丙二醇	No 不含
Halogens 卤素	N/A 不适用
Sulfur 硫	N/A 不适用
Water Soluble 水溶性	No 不溶于水
Flash Point 闪点*	235°C
Auto-ignition Temperature 自燃温度†	461°C

* Flash point temperature determined in accordance with ASTM Method D92 using the Cleveland Open Cup method. In areas where vapors may be confined in an enclosed or semienclosed area, the actual flash point of this product may be lower than recorded.

闪点温度根据ASTM方法D92使用克利夫兰开口杯闪点测试仪测量得到。在蒸汽可能限制在封闭或半封闭区域的情况，实际闪点可能会低于该记录值。

† Auto-ignition temperature determined in accordance with ASTM Method E659.

自燃温度根据ASTM方法E659测量得到。

INSTRUCTIONS FOR USE 使用指南

In most applications, the transducer is best coupled with the thinnest layer of couplant possible. Apply a small bead of couplant directly to the center of the transducer face and push the transducer down onto the test surface with a uniform force so the couplant spreads out evenly towards the edge of the transducer.

大多是应用中，传感器最好使用尽可能薄的耦合剂涂层，直接使用一小滴耦合剂在传感器中央并将传感器用力均匀的压在测试表面以便于耦合剂均匀分布。

For best results, allow a few seconds of “melttime” before taking temperature reading. Signal attenuation may occur if this couplant is used at a temperature below the recommended operating range. In high-temperature applications it is recommended that extra care is taken to use just enough couplant to perform the test procedure as excess couplant may increase vapors which can pose a flash hazard.

为得到最佳使用效果，读取温度前等待数秒“熔化时间”。在温度低于推荐操作温度范围时使用该耦合剂可能会发生信号衰减。高温条件下应用，建议额外小心操作使用适量的耦合剂以达到最佳性能，多余的耦合剂会增加蒸汽产生闪爆危害。

Extreme-Temperature Guidelines 极端温度-指南

Before use, make sure the surface temperature of the test piece does not exceed the maximum specified temperature for the application and environmental conditions.

使用前确认测试零件表面温度未超过最大规定温度并且确认环境条件。

At high temperatures, couplants evaporate relatively quickly; more couplant may be required near the upper end of the operating temperature range to compensate for evaporation. Care should be taken to avoid using excess couplant as this may lead to increased vapors which can pose a flash hazard.

在高温时，耦合剂蒸发相对较快，在接近可操作温度最高值时可能需要更多的耦合剂来补足蒸发的部分。操作时需要小心谨慎以避免多余的耦合剂蒸发可能导致闪爆危害。

The flash point of a material is the lowest temperature at which it can vaporize to form an ignitable mixture in air. At the flash point temperature, the material vapor will flash only if an ignition source is present and the vapor may cease to burn when the ignition source is removed. In areas where vapors may be confined in an enclosed or semi-enclosed area, the flash point of a material may be lower than the recorded value.

材料的闪点是蒸发后与空气混合形成可燃混合物的最低温度，达到闪点温度时，材料的蒸汽只会存在有点火源出现时闪爆，当点火源移除，蒸汽可能会停止燃烧。在蒸汽可能限制在封闭或半封闭区域时，材料的闪点会低于测量记录值。

The auto-ignition temperature of a material is the lowest temperature at which it will spontaneously ignite in a normal atmosphere without an external source of ignition, such as a flame or spark. Environmental or atmospheric factors will affect auto-ignition temperature; therefore it is important to observe a suitable safety margin in conjunction with auto-ignition temperature.

材料的自燃温度是在正常环境无外部点火源例如火焰或者火花时自发燃烧的最低温度环境和空气因素会影响自燃温度，因此观察与自燃温度保持适当的安全余量是非常重要的。

Smoke develops as the couplant begins to decompose due to heat exposure. Smoke is not an indication the couplant is not working, but it does indicate the effective coupling time is limited. Smoke produces vapors which may lower the couplant flash point, particularly in enclosed or semi-enclosed areas.

当暴露在高温下耦合剂分解会产生烟雾。烟雾的产生不表示耦合剂失效，但确实表明耦合有效时间有限。烟雾产生蒸汽会降低耦合剂的闪点，尤其是在封闭或半封闭区域。

A couplant's upper temperature range for short duration thickness gauging is higher than when used for flaw detection.

耦合剂在短期测厚使用时最高使用温度要高于缺陷检测的最高温度。

REMOVAL 清除

Remove excess couplant from transducers and other surfaces by wiping with disposable rags or paper towels, being careful to protect skin from hot surfaces.

使用一次性抹布或纸巾去除传感器和其他表面多余的耦合剂, 注意保护皮肤避免接触高温表面。

Do not use solvent-based cleaners on hot surfaces.

不要在高温表面使用溶剂型清洗剂。

STORAGE 储存

Store couplant in the original container. Do not freeze. Store out of direct sunlight. Keep container closed when not in use. Never put unused couplant back into the original storage container.

使用原包装储存耦合剂, 切勿冷冻。避免阳光直射。不使用时保持容器封闭, 不要将未使用耦合剂放回原包装。

Refer to Safety Data Sheet for additional storage instructions.

更多的储存说明请参考SDS (安全数据表)。

PACKAGING 包装形式

30-6XT04	4 fl oz / 118 mL tube (case of 6) 4盎司软管 (6支/箱)
30-901	1 gal / 3.78 L cubitainer 软方桶

HEALTH AND SAFETY 健康和安全

Extra care should be taken when operating with couplants in high-temperature applications; refer to Extreme-Temperature Guidelines for pertinent information regarding couplant behavior and properties at high-temperatures.

当在高温条件下使用耦合剂时要额外小心, 请查阅极端温度指南中关于耦合剂在高温条件下的行为和特性的信息。

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the product Safety Data Sheet, which is available at www.magnaflux.cn.

产品使用前请阅读相关的健康和安全信息。完整的健康和安全信息参考 www.magnaflux.cn 上的SDS (安全数据表)。