

#1 Gray 灰磁粉

NON-FLUORESCENT MAGNETIC PARTICLES

非荧光磁粉

#1 Gray provides strong contrast on most metal surfaces during dry method mag particle testing in visible light. It is ready-to-use for visible light flaw detection of surface and slightly subsurface discontinuities in ferrous metals. It can be used in a powder blower or shaken from a bottle during magnetization, and blown off while current is still being applied. On material with a high magnetic retentivity, indications can still be formed after the current has been turned off.

#1 灰磁粉在可见光条件下可以在大多数金属表面提供强对比度。它是一款用于测试铁磁性金属表面和近表面缺陷的即用型磁粉。可以在磁化时使用吹粉器或使用磁粉瓶摇晃喷洒，并可以在通电流时吹掉。在保磁性较高的材料上，电流断开后仍然可以形成缺陷显示。

FEATURES 特性

- Sharp, color-contrast indications on high reflective surfaces
在高反光表面形成颜色对比鲜明的缺陷显示
- Ready-to-use
即用型
- Good particle buildup for quick detection
磁粉聚集迅速，适合快速检测
- Highly refined for optimal particle shape and size combination
高度优化的磁粉形状和大小分布
- Minimal dust build-up
极少的粉尘聚集
- Does not require a black light or darkened inspection area
不需要黑光灯和暗室检测

SPECIFICATIONS COMPLIANCE 符合规范

- AMS 3040
- ASTM E709
- ASTM E1444
- ASME
- MIL-STD-2132
- MIL-STD-271
- NAVSEA 250-1500-1
- NAVSEA T9074-AS-GIB-010/271

PRODUCT PROPERTIES 产品属性

Appearance 外观	Fine, dry powder 干燥、细粉末
Color in Visible Light 白光下颜色	White-gray 灰白色
Odor 气味	Odorless 无味
Mean Particle Size 平均粒径*	80 µm
SAE Sensitivity SAE 灵敏度**	> 8

* As determined by industry-typical method for measuring particle size.
用工业上通用的方法测试颗粒度。

** Representative of the number of indications on a tool steel ring as defined in ASTM E1444.
ASTM E1444中定义的工具钢环形试块上能显示的孔数。

USE RECOMMENDATIONS 使用推荐

NDT Method 无损检测方法	Magnetic Particle Testing, Nonfluorescent / Visible, Dry Method 磁粉检测,非荧光磁粉,干法
Required Equipment 设备要求	Magnetizing device, powder dispenser 磁化装置, 喷粉装置
Temperature range 温度范围†	< 399°C

† Particle integrity and mobility may decline beyond these temperature limits.
超出此温度范围，磁粉的完整性和流动性可能下降。

APPLICATIONS 应用

Defect location: surface and slightly subsurface

缺陷位置: 表面及近表面缺陷

Ideal for 适用于

- Light, medium, dark surfaces 浅色、中等深色及深色表面表面
- Detecting medium, large and coarse discontinuities
检测中、大型的不连续
- Weld testing 焊缝检测
- Forgings 锻造
- Castings 铸造
- Field testing 外场检测
- Spot inspections 现场检测
- In-service inspections 在役检测
- Large parts 大型零件
- Dark surfaces 深色表面
- Extreme temperatures 极端温度
- Rough/textured surfaces 粗糙/纹理表面

Defect examples 缺陷类型

- Inclusions 夹杂
- Seams 裂缝
- Shrink cracks 收缩裂纹
- Tears 撕裂
- Laps 折叠
- Flakes 白点
- Welding defects 焊接缺陷
- Grinding cracks 磨削裂纹
- Quenching cracks 淬火裂纹
- Fatigue cracks 疲劳裂纹

INSTRUCTIONS FOR USE 使用指南

Use #1 Gray with appropriate magnetization procedure and equipment. For best results, all components, parts, or areas to be tested should be clean and dry prior to testing to provide an optimal test surface.

采用合适的磁化装置和检测工艺。为到达最佳效果, 检测前需对所有组件、工件或被检区域进行清洗和干燥以保证测试表面的最佳状态。

Apply a fine layer of #1 Gray to test area with a powder dispensing device, such as a powder spray bulb or powder blower. As the current is being applied, dust the powder over the part. If there is excessive powder background, gently blow the excess powder off while the magnetic current is flowing.

#1灰磁粉可以使用喷粉设备例如磁粉喷球, 吹粉器等在测试区域施加, 当施加电流时, 将磁粉覆盖零件, 如果形成了多余的磁粉背景, 电流通过的同时轻轻的吹掉多余的磁粉即可。

REMOVAL 清除

All components, parts, or inspection areas must be properly demagnetized before cleaning to ensure easy particle removal. Remove particles with air blower or brush.

检测结束后, 为保证磁粉容易被去除, 应该先对组件、工件或者被检区域进行退磁。使用空气吹枪或刷子轻扫去除磁粉。

STORAGE 储存

Store unused product in the original container. Keep container closed when not in use. Protect from sunlight. Store in a well-ventilated area away from magnetizing equipment. Cool, dry storage location is preferred. Refer to Safety Data Sheet for additional storage instructions.

储存未使用的产品需要保持在原包装内, 不使用时保持包装容器闭合, 防止日光照射, 通风良好处储存, 远离磁化设备, 凉爽干燥的储存环境最适宜。更多的储存说明请参考SDS(安全数据表)。

PACKAGING 包装形式

01-1716-20C 5 kg pail 5公斤桶

01-1716-30C 20 kg pail 20公斤桶

HEALTH AND SAFETY 健康和安全

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)。