

Reference block 1

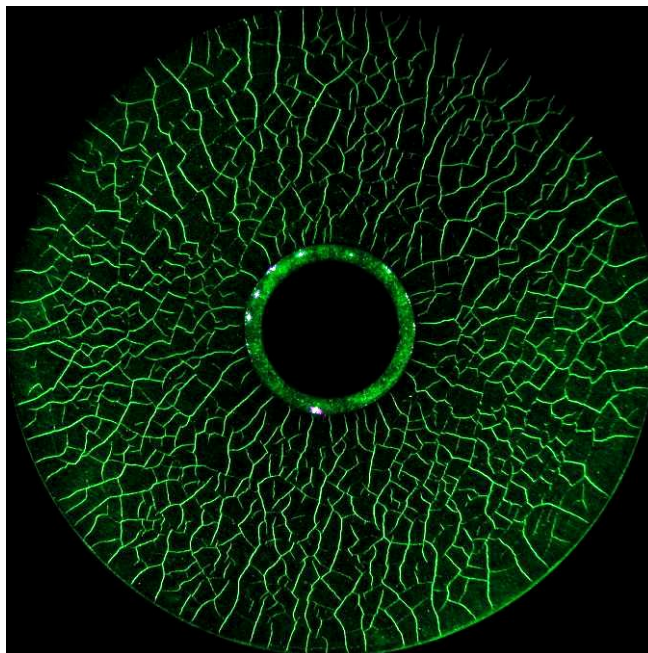
also named “MTU Nr.3 “
Magnetic particle testing

Art.-No. 134.002.002

**Reference block for magnetic particle testing, for fluorescent powder
Test Body type1 according to EN ISO 9934-2 appendix B
for the traceability of magnetic powder**

The test body is a disk with two types of natural cracks, as shown in the picture below. The big cracks are sanding cracks while the little cracks are tension cracks. The test body has been permanently magnetized by use of the hole in the middle of the test body. The rating of the test body is made by comparison of the picture with the results of the test body while using fluorescent magnetic powder and a UV lamp.

The test body is used in these aspects: a) for quality comparison of different magnetic powders b) for quality assurance of magnetic powders while working with the testing bench and c) to assure the same dose of magnetic powder in automatic testing apparatuses.



Production

Material preparation:

Hardening:

Grinding cracks:

Stress-corrosion cracks:

Magnetisation:

Check of the cracks:

90MnCrV8; surfaces plane grinded on $9,7 \pm 0,05$ mm

860°C to 2 h; in oil rinsed; hardness 63 to 70 HRC

speedness 35 m/s; grain 46J7; delivery 0,05 mm cross feed 2,0 mm

black heated at 145°C to 150°C for 1,5 h

central ladder, direct current $I = 1$ kA (peek)

it must be used a flourescent magnetic powder test material