



Equipment

Product information

TAM panels – polished & full grit

MR[®]
CHEMIE
NDT-materials

TO SEE MORE!

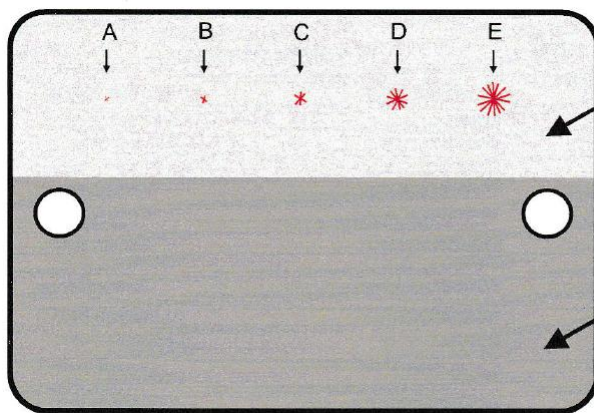
TAM panels

type "full grit" & type "polished"

TAM type: "polished"

TAM 146040-1 mirror chrome plate
with certificate and picture

Art.-Nr. G21 L



Ra = 0,15 Micrometer

polished surface
surface colour = silver

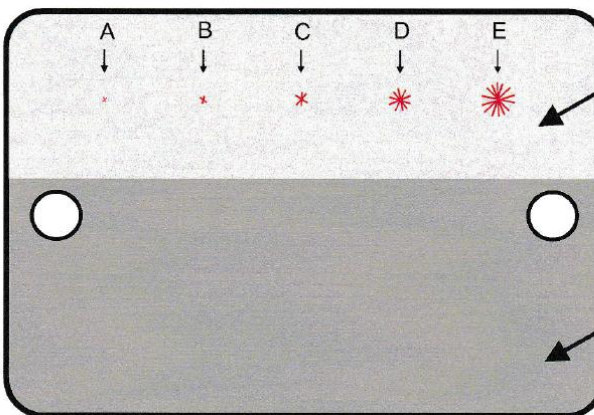
Ra = 1,5 Micrometer

Roughness area
grit blasted with aluminium oxide
grit size = 120, pressure = 80 P.S.I.

TAM Type: "full grit"

TAM 146040-2 grit blasted all over
with certificate and picture

Art.-Nr. G21-1 L



Ra = 0,7 Micrometer

grit blasted with aluminium oxide
grit size = 220, pressure 80 P.S.I.
surface colour = grey

Ra = 1,5 Micrometer

Roughness area
grit blasted with aluminium oxide
grit size = 120, pressure = 80 P.S.I.



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Product Description - Usage notes



Intended use of the TAM panel:

The TAM panel serves the user in his PT tests for the functional control of the complete penetrant process.

Description:

The TAM Panel is a stainless steel plate. Half of the test surface is hard coated. Five crack centers are evenly spaced in the hard coated strip. The crack centers are circular patterns forming a star. The unplated portion of the TAM panel has been grit blasted to a uniform surface roughness ideally suitable for evaluating residual penetrant background characteristics. Ra = 1,5 µm (1.5 µm)

Application:

The penetrant to be checked is applied onto the entire surface of the TAM panel by immersing, spraying, or brushing. After the prescribed penetrant dwell time, the excess penetrant is removed. The excess penetrant removal depends on the type of penetrant. Rinsing with water or spraying with water or solvent or immersion dip or other methods. Afterwards, the surface is dried. Finally, the developer is applied. Usually after 5 to 10 minutes, the evaluation is carried out. In the hard coated strip the judgement is based on the number of visible crack centers. The uncoated portion of the panel can be used to check the excess penetrant removal by evaluating the amount of remaining penetrant.

Cleaning and Storage

For a correct indication, the TAM panel must be free from dirt and residual penetrant from former checks. The TAM panel should carefully be cleaned to remove residual penetrant and developer. The Panel can be cleaned with Acetone, Spiritus, Benzine, Tap water and a Ultrasonic cleaner. Do not clean with a heat more as 40°C (104 °F). Exposing the TAM Panel to highly oxidizing chemicals can cause discoloration (dark oxidation stains) on the Panel surface. Oxidation stains can be removed again.

After the panel has been cleaned and dried, it can be stored in the Box or stored submerged in a cleaning solvent like acetone or isopropyl alcohol.

Recalibration in 12 month intervals:

The star-shaped defects of the TAM panel might change in size and display capability by dirt, corrosion, high heat or mechanical stress. Intervals for reconditioning and recalibration: With only occasional use of the TAM panel – 12 month recalibration intervals. All TAM Panels are serial numbered and supplied with photos and calibration certificate.

17.08.2018

Technical changes reserved!



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Usage Stains - Cleaning Recommendations

Usage stains on the roughness surfaces of the TAM panels are quite normal and often arise after the first use of the panel. After panel cleaning, fingerprints or residues of evaporated acetone or water residue leave stains on the roughness surfaces, which is normal and unavoidable in TAM panels. After the first use of the TAM Panel, the roughness surfaces can often no longer be cleaned completely free of usage stains.

Usage stains have no negative impact on the PT display capability of the TAM panel. Also, dark oxidation stains have no negative impact on the PT display capability of the TAM panel. Oxidation stains have only a tiny thickness of just 1 micron, for comparison: the crack depth of all 5 crack displays is 76 microns.

Advantages of the surface material:

Better and more accurate star cracks, very narrow and very uniform crack widths. Very dimensionally accurate star diameter, very long-lasting star cracks. The cracks are quick and easy to clean.

Disadvantages of the surface material:

After first use, cleaning spots form on the roughness surfaces. Do not use oxidizing cleaners.

We recommend the following cleaning process after the PT tests:

The cracks in the TAM Panel can be cleaned very quickly with the following method: 60 seconds cleaning time in the ultrasonic cleaner with acetone are enough and all the cracks in the panel are clean.

(Insert the TAM panel into the ultrasonic cleaner, pour in acetone to about 5 mm above the plate. Do not use a heater on the ultrasonic cleaner. The acetone cleaner can be reused several times for panel cleaning.)