

## NiCr Test Panels

### Twin Test Panels for Checking Comparative Penetrant System Performance

The NiCr Test Panels are made from brass plated with 20 micron nickel-chrome alloy and stressed to induce linear cracks in the plating. The cracked test piece is cut into two twinned panels so that in-use materials can be run in comparison to new and unused materials on identical flaws. Comparison testing can show performance differences in the penetrant material, emulsifiers used with post-emulsified penetrant, developers, or the processing equipment itself. NiCr Test Panels are also known as ISO 3452-3 Type 1 reference blocks.



#### FEATURES

Length	100mm +/- 2mm
Width	35mm +/- 2mm
Thickness	2mm +/- 0.2mm
Plating / flaw depth	20 microns

#### SPECIFICATIONS

Conforms with:

- ISO 3452-3 Type1

For use with systems conforming to:

- AMS 2647D
- ASTM E1417
- ISO 3452

#### INSTRUCTIONS

Prior to use, each panel should be cleaned to ensure that no residues are left on the panel. Drying with heat is recommended to completely remove all water from the cracks. After the panels are clean and dry, they can be processed in accordance with penetrant system materials and parameters to

simulate production conditions. Typically one panel is processed using new, unused materials and the other panel is processed using working / in-use materials. Compare the appearance of the panels after processing to assess the performance of the working / in-use materials, noting any degradation from the performance of new, unused materials.

After use, thoroughly clean the panels before storage to remove all penetrant and developer materials. Ultrasonic cleaning with emulsifier or cleaner/remover solvent is recommended.

Note: Before using the panels for the first time, heavy-duty cleaning may be necessary. A chromic acid cleaning solution may be used to remove any buffing compound residue left by the manufacturing process.

Caution: Avoid any mechanical shock and do not attempt to bend or straighten the test panels. Do not expose the test panels to temperatures over 100°C for an extended period of time. Any of these conditions will permanently damage the test panels.