



Penetrant testing

Penetrant testing acc. to EN 571-1 (DIN EN ISO 3452)

General

With the penetrant testing procedure you can quickly determine surface discontinuities on all iron metals and non-iron metals, some plastics and ceramic materials, glass, etc., provided that the discontinuities are open to the surfaces. This procedure is used in the examination of welding seams, cast pieces, in shipbuilding, automobile and aircraft construction, apparatus and tank construction, etc. Liquid penetrant testing can be carried out with at daylight visible and/or under UV-light fluorescent penetrants. This method is characteristic for the fact that, contrary to the magnetic particle inspection, defects or discontinuities can be proven also on not magnetizable materials.

Process description

The testing procedure consists of four separate processing steps, for which the following products are necessary:

1. **Precleaning (MR[®] Remover)**
2. **Application of penetrant (MR[®] Penetrant)**
3. **Excess penetrant removal (MR[®] Remover or water)**
4. **Application of developer (MR[®] Developer, white)**



1. Step

precleaned surface
with defect



2. Step

surface defect with red
or fluorescent
penetrant (water
washable)



3. Step

surface defect after
removal of excess
penetrant



4. Step

surface defect after
developing with red
indication

