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Visible Dye Penetrant

Visible dye penetrant is a method of NDT penetrant testing, which is typically red and uses a white developer to draw the dye back to the surface from inside the discontinuities by 'wicking' or capillary action. This is often referred to as the 'colour contrast' method. The colour contrast created in the dye penetration test is highly visible under natural light and may be used on a variety of materials. It is generally not as sensitive to very small discontinuities as the fluorescent penetrant testing method. However, it does not require special lighting conditions, therefore NDT technicians do not have to carry UV-A Lamps, blackout shades or power generators.

THE Applus+ SOLUTION

The liquid penetrant examination services at Applus+ use a straightforward visible dye penetrant test following a three-step process: the dye, the remover and the developer (3 cans of product make it easy to transport and utilise). Applus+ only uses penetrant supplies for our liquid penetrant testing from reputable manufacturers who ensure their products meet code requirements. The NDT penetrant testing technicians at Applus+ are trained in accordance with a written practice that complies with ASNT-SNT-TC-1A. Applus+ has qualified technicians and staff available to meet its clients' needs as challenges arise.

Target customers

NDT penetrant testing and visible dye penetrant is commonly used in industries such as oil exploration/production and refining, automotive and maritime, among others. Dye penetration test can be used on a variety of non-porous materials including forgings, castings, ferrous and non-ferrous metals, ceramics, glass and some plastics. The services Applus+ provide for this method of NDT penetrant testing is highly portable and can be undertaken almost anywhere.