Approvals and conformities

ASME
RCC-M
ISO 3452-2
ASTM-E-1417

MANUFACTURER: Sherwin Inc. (USA) / NDT-Europa (NL)

DESCRIPTION / APPLICATION(S):
Method A (water-washable) and method C (removable by solvent), Type II, level 2 according to ISO 3452-2. High sensitivity, easy to rinse. **Free from diazoic dye (Azo III A 2 amine) and mineral oil.** Bright red dye penetrant dedicated to searching surface flaws.
Companion products: Cleaners N120, DR-62
Removers N106A, DR-60
Developers D-100, R60, D-106

DIRECTIONS FOR USE

First eliminate from the surface of the part and from the **inside of possible flaws** all pollutants (grease, oils, water, rust…) by mechanical and chemical appropriate means:

N120 and DR-62 cleaners (no gritting, no shot blasting, avoid wire brush on weak metals). Wait for complete drying and return to ambient temperature. DR-60 and N106A should not be used during this step.

Penetrant application:

Depending on most suitable process: dipping the part in a tank, spraying (spray can or gun), brushing, wiping.

Dwell time:

20 minutes are recommended. Dwell time may be shortened (search for large flaws) but never below 10 minutes, or extended for tight cracks (penetrant can be left several hours on the part).

Removing the excess of penetrant:

This is a delicate operation. Remove the excess of penetrant from the surface, being careful not to touch the penetrant tapped in the defects.

DPR-256 is easy to wash with water, only by spraying; **never dip the parts in water**.

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Rinse under low pressure (30 to 150 kPa), with the nozzle of gun 30 to 40 cm far from the part, during the shortest time possible, until the pinkish background disappears.

If a pinkish background remains on particularly coarse parts, clean it off with a N106A wipe or DR-60, then rinse again within 30 seconds.

If you can't or don't want to use water, carry out the following process (and only this one):

- Wipe off the excess of penetrant from the surface with dry rags.

- Wipe again with N106A wipe or DR-60, or with rags slightly moistened with N106A or DR-60.

- Wipe again with clean, dry rags, until the pinkish background disappears.

- DR-62 and N120 should not be used during this step.

Drying:

After rinsing, dry either through natural evaporation, or preferably through hot air

circulation (80 °C as a maximum).

If you wipe the part, use non fluffy clean rags, not too absorbing, and by dabbing the part.

Applying the developer:

Once moisture has totally evaporated, apply one of the mentioned developers by spraying only.

Inspection:

Around 10 minutes after the developer has dried, you may inspect the part: the defects appear on a white background as red points (blisters, porosities) or red lines (welding defects, flaws, etc.).

A longer development time (30 minutes and more) may allow detecting extremely thin defects.

Viewing conditions:

Parts shall be inspected as per ISO 3059 standard requirements.

Inspection is better when using a "cold" white light (industrial white light) or "intermediate" white light ("cool white" light). Colour temperature must be higher than 4500K. Colour rendition index must be higher than 80 or light with an illuminating index of D65. It is recommended NOT TO USE undervoltaged incandescent bulbs, as it often happens with battery-operated units, this giving a yellowish light.

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TECHNICAL CHARACTERISTICS

Very low content in halogens and sulphur.
Compatible with all metals and ceramics, and with some plastics.

Biodegradability:
The cleaner sample DPR-256 is « inherent biodegradable without pre-adaptation» and further evidence of an

« ultimate inherent biodegradability » according to OECD criteria extrapolated to a finish product.

Appearance	bright red liquid
Flash point	> 93°C

PRECAUTIONS FOR USE AND STORAGE

Transport / Handling: Refer to Material Safety Data Sheet (MSDS).
Storage : Keep away from moisture
Temperature range: 0°C à 50° C
Keep packaging closed after taking out some of the product

This technical data sheet replaces and cancels the previous one.

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