



ER-83C

HYDROPHILIC EMULSIFIER

Technical Data Sheet

Approvals and conformities

ASME
ISO 3452-2
PRATT & WHITNEY
QPD-AMS 2644

Manufacturer Sherwin (USA) / NDT-Europa (NL)

Description / Application :

Concentrated product that is diluted in water to emulsify the excess of post-emulsifiable penetrants such as RC- series.

Companion products: Cleaner N120, DR-62

Remover N106A, DR-60

Developer D-100, D-106

Dry powder developer D-90G

All post-emulsifiable penetrant Sherwin RC-XX

- Very low halogen and sulphur content
- Compatible with all metals and certain plastics

DIRECTIONS FOR USE

1. **Spray:**

A highly diluted solution of ER-83C is better (0.1% to 3%). However, a greater concentration may also be used.

The concentration is to be determined according to:

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- Pre-washing result,
- Surface condition,
- Attractiveness between part surface and penetrant
- Strength of the spray,
- Dwell time of the emulsifier (washing time + time elapsed before rinsing).

1. Immersion:

It is recommended to pre-wash parts to eliminate as much excess of penetrant as possible due to mechanical action of water. Then, dip the parts into an ER-83C solution, let drain and rinse with water.

Nota: it is not necessary to move the parts during immersion, nor to stir the emulsifier. As there is no mechanical agitation or action other than the incoming and outgoing movement, plus the final rinsing, a solution more concentrated than for spraying is required to eliminate the penetrant.

The typical concentration is 5 to 20%, but, depending upon the case, more diluted or more concentrated solutions can be used.

NOTES:

ER-83C concentration should be regularly checked. The superficial tension of the mixture being very low, water evaporates significantly more quickly than observed on pure water. Therefore, water should be added regularly, because increased concentration inevitably causes greater activity for the emulsifier. The emulsifier concentration in water can be measured using a refractometer. In addition, the ER-83C solution should be checked for its penetrant content, because contamination with penetrant interferes with the emulsifying process and, after some time, the ER-83C solution should be replaced. Bubbling is useful to oxygenate the bath and avoid odours of anaerobic bacteria.

TECHNICAL CHARACTERISTICS

Maximum water content : 2 %

Recommended dilution:

- Immersion : < 20 %
- Spraying : 0,1 to 3 %

Biodegradability :

According to the biodegradability test in aerobic and according to OECD 302 B criteria, ER-83C has shown capacities at inherent biodegradability. The sample of ER-83C is 'inherent biodegradable without pre-adaptation' and further evidence of an "ultimate inherent biodegradability" according to OECD criteria extrapolated to a finish product. The tests are done on the diluted product alone, unsaturated by penetrant.

The result is positive (biodegradability >70%) but this does not mean that the effluents of ER-83C can be released into natural environments, however an effluent discharge into water treatment

plant is entirely possible: contact the entity managing the wastewater networks in your area.

Appearance pinkish liquid
Flash point > 93°C
Viscosity 15 mm²/s +- 10 % at 38°C

PRECAUTIONS FOR USE AND STORAGE

Transport: Refer to Material Safety Data Sheet (MSDS).

Storage / Shelf life: Keep away from moisture

Temperature range: 0°C à 50° C

Keep packaging closed after taking out some of the product.

Can / drum: 60 months

This technical data sheet replaces and cancels the previous one.

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