

Approvals and conformities

ASME
ISO 3452-2
QPL-AMS 2644

MANUFACTURER: SHERWIN (USA) / NDT-Europa (NL)

DESCRIPTION / APPLICATION(S):

Powdered mixture of white particles, inhibitors and wetting agents which is mixed before use with water where it forms a clear liquid. After application, it dries to a uniform white powder coating, and, under black light inspection, reveals the location of cracks, pores, and similar flaws.

Companion products: All post-emulsified Sherwin penetrants
Emulsifier ER-83A, ER-83B and ER-83C or ER-85
Removers DR-60 or DR-62

DIRECTIONS FOR USE

These instructions describe the basic process. They may be amended by the user to comply with applicable specifications and/or inspection criteria provided by the contracting agency.

Mixing:

Mix the dry powder with water.

The recommended concentration is 120g/L; the typical concentration range used is from 90g/L to 180g/L.

Always add the powder to water while stirring the water. Warm water speeds the dissolution.

Allow 3-4 hours for complete dissolution.

Solution maintenance:

Monitor solution concentration with hydrometer readings. The specific gravity for 90 g of D-113G.1 /L of water at 15°C equals 1,0372 ; 120 g/L equals 1,0461 ; 180 g/L equals 1,0671.

The suspension can be adjusted by adding more D-113G.1 powder or by adding more water.

Some water loss through evaporation is inevitable so the solution will require monitoring and periodic adjustment.

Avoid contaminating the D-113G.1 suspension with fluorescent penetrant. To prolong solution life, it is important to remove as much excess surface penetrant as possible before immersing a part in the D-113G.1 suspension.

Use:

Briefly immerse parts in D-113G.1 suspension immediately following the removal of excess surface penetrant, and before drying. Brief immersion is especially critical with water washable penetrants. Allow excess developer to drain for a few seconds before drying.

Drying:

After immersion, completely dry the part in a recirculating oven set no higher than 71°C, or according to governing specifications. Allow the parts to remain in the dryer somewhat longer than it actually takes to dry the developer, heat helps drive flaw-entrapped penetrant to the developer-coated surface.

Removal:

After the parts have been examined under black light for flaws, D-113G.1 powder may be removed with a pressurized water wash.

TECHNICAL CHARACTERISTICS

- No flash point
- Very low halogen and sulfur content.
- Free of asbestos and crystallized silica.

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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1 Date : 05-07-2017 Written and checked by : F. Héron