

# PD3

## DRY POWDER DEVELOPER

### 1 Description

PD3 dry powder developer is a homogeneous blend of synthetic white powders of fine particle size with low impurity levels.

PD3 is used to develop the complete range of Britemor fluorescent penetrants. Application of this developer renders any defect indications much easier to see when viewed under UV-A / black light than conventional powder developers. PD3 offers outstanding advantages in speed of development and resistance to excessive bleed-out of penetrant from defects.

PD3 is not combustible and won't contribute to the creation of explosive dust.

#### Approvals

✓ Airbus	AITM 6-1001 (conformance)
✓ ASME	Boiler & Vessel Code Section V, Article 6 (conformance)
✓ ISO	3452-2 (conformance)
✓ Rolls Royce	RRP 58003 (conformance)
✓ SAFRAN	IN-5000 and PR-5000 (conformance)
✓ SAE	AMS 2644

Ask your Chemetall representative for a complete list of approvals

### 2 Typical Properties

Property	PD3
Bulk Density	100 – 180 kg/m <sup>3</sup>
Flashpoint	Non-flammable
Particle size	Sub-micron – 25 microns

These are typical values only and do not constitute a specification.

### 3 Method of Application

After suitable pre-cleaning, penetrant application, penetrant removal and drying of the components, PD3 may then be applied in a dust storm cabinet or by an electrostatic gun or a powder applicator.

PD3 dry powder developer is used as supplied. After application of the developer the components must be left in contact with the powder for a minimum period of 10 minutes. After this time the excess developer is removed by shaking or it is gently blown off with low pressure, filtered air at 0.3 bar/5 psi maximum and the components inspected in a darkened area under ultra-violet light. For optimum results on very fine defects, a development time of 30 minutes is recommended.

For advice concerning application equipment contact your local Chemetall Aerospace Technologies Representative.

#### 4 Effects on materials

When PD3 is used in the prescribed manner it has no significant effect on any common materials of construction. It is completely safe to use on all metals, plastics and rubbers.

Equipment/tanks can be constructed of stainless steel, polythene, polypropylene or PVC.

#### 5 Storage

Store in a dry place. Ensure that containers of PD3 are sealed to avoid the ingress of any moisture. Shelf life is 60 months.

#### 6 Labor and environmental protection

Before operating the process described it is important that this complete document, together with any relevant Safety Data sheets, be read and understood.

All local and national regulations on the transport, storage, use and waste treatment of chemicals in concentrated or diluted form and as working solutions must be obeyed.

#### 7 General information

Chemetall supplies a wide range of chemical products and associated equipment for cleaning, descaling, paint and carbon removal, metal working and protection and non-destructive testing. Sales Executives are available to advise on specific problems and applications.

The above details have been compiled to the best of our knowledge on the basis of tests and research work and with regard to the current state of our practical experience. This technical product information is non-binding. No liabilities or guarantees deriving from or in connection with this leaflet can be imputed to us. Statements relating to possible uses of the product do not constitute a guarantee that such uses are appropriate in a particular user's case or that such uses do not infringe the patents or proprietary rights of any third party. The reproduction of any or all of the information contained in this leaflet is expressly forbidden without Chemetall's prior written consent.

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