

DEK STANDARD ENGINEERING INSTRUCTION

Title

Page 1 of 7

POWDER COAT PALE GREY (RAL7035)

DSF2.9.36

TYPE

Interpon

MANUFACTURER

Akzo Nobel

SPECIFICATION DETAILS

Colour Pale Grey to RAL 7035

PROPETERTIES & APPLICATION DETAILS

See Sheets 2 and 3

For ROHS Details See Sheet 4

For MSDS See Sheet 5,6&7

Issue	01	02	03	04	05	06	07	08
DCR	43148							

DEK STANDARD ENGINEERING INSTRUCTION

Title

Page 2 of 7

POWDER COAT PALE GREY (RAL7035)

DSF2.9.36

Interpon 700

Product Description:

Interpon 700 is a series of epoxy/polyester hybrid powder coatings offering improved colour, UV-light and heat stability compared to the **Interpon 100** range of pure epoxies, whilst maintaining an optimum combination of decorative and protective qualities.

Interpon 700 powders are available in the full range of colours in gloss, reduced gloss, textured, aluminium and other special finishes or can be custom matched to the user's requirements.

Powder Properties:

Chemical type	Epoxy/Polyester
Particle size	Suitable for electrostatic spray
Specific gravity	1.2-1.7 g/cm ³ depending on colour
Storage	Dry cool conditions below 25°C
Shelf life	12 months
Sales Code	E-series
Stoving schedule^(a)	20 minutes at 160°C
(object temperature)	10 minutes at 180°C
	6 minutes at 200°C

(a) For full matt powders add 5 minutes to times shown.

For high reactivity (HR) powders see overleaf

Test Conditions:

The results shown below are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only. Actual product performance will depend upon the circumstances under which the product is used.

	Substrate	Mechanical tests: Gold Seal polished steel
		Chemical & durability tests: Gold Seal lightweight
	Pretreatment	Zinc phosphate
	Film Thickness	50 microns
Mechanical Tests:	Stoving	6 minutes at 200°C (object temperature)
	Flexibility	ISO6860 Pass 3mm (Conical Mandrel)
	Adhesion	BS EN ISO2409 Gt 0 (2mm Crosshatch)
	Erichsen Cupping	ISO1520 Pass >7mm
Chemical and Durability Tests:	Hardness	BS EN ISO 1518 Pass - no penetration to substrate (2000gm/s)
	Impact	BS3900-E3 Pass 2.5mm
	Salt Spray	ISO 7253 Pass - no corrosion creep more than 2mm from scribe. (250 hours)
	Cyclic Humidity	BS3900-F2 Pass - no blistering or loss of gloss (1000 hours)
	Distilled Water Immersion	BS3900-F7 Pass - no blistering or loss of gloss (240 hours)
	Exterior Durability	Some chalking after 6-12 months continuous outdoor exposure but less than pure epoxies. Protective properties not impaired.
	Colour Stability at elevated temperatures	Good - satisfactory for continuous exposure up to 125°C
	Chemical Resistance	Generally excellent resistance to most acids, alkalis and oils at normal temperatures.

Issue	01	02	03	04	05	06	07	08
DCR	43148							

DEK STANDARD ENGINEERING INSTRUCTION

Title

Page 3 of 7

POWDER COAT PALE GREY (RAL7035)

DSF2.9.36

Interpon 700

Pretreatment:

Aluminium, steel or Zintec surfaces to be coated must be clean and free from grease. Iron phosphate and particularly lightweight zinc phosphating of ferrous metals improves corrosion resistance.

Aluminium substrates may require a chromate conversion coating.

Application:

Interpon 700 powders can be applied by manual or automatic electrostatic spray equipment. Unused powder can be reclaimed using suitable equipment and recycled through the coating system.

Additional Information:

Interpon 700 powders are available in bright aluminium finishes which are susceptible to scratching and finger marking. Protection by use of a clear polyester top coat is recommended when the coated article is to be subjected to physical damage or environmental damage. The top coat should ideally be applied within 2 hours of the metallic coating and gloves should be worn when handling the metallic coated articles. For further details on the use of metallic powder coatings please contact Akzo Nobel.

Interpon 700HR (High Reactivity) powders are also available for use where a lower stoving temperature or shorter curing schedule is required.

Sales code: F-Series

Stoving schedule: 15 minutes at 160°C

(object temperature) 5 minutes at 180°C

Shelf life: 6 months

For further details on powder properties and film performance of **Interpon 700HR** please contact Akzo Nobel.

Safety Precautions:

When using do not eat, drink or smoke. Do not breathe the dust. In case of insufficient ventilation wear suitable respiratory equipment. For further information please refer to the specific product Material Safety Data Sheet (MSDS).

Disclaimer:

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavour to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

Issue	01	02	03	04	05	06	07	08
DCR	43148							



HSE Information ¹⁹

POWDER COATINGS AND THE RoHS DIRECTIVE

In order to facilitate the objectives of European Directive 2002/96/EC on waste electrical and electronic equipment (WEEE), Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (henceforth referred to as RoHS) sets out those substances not permitted in such equipment placed on the market in the European Union from 1 July 2006.

Since a total avoidance of certain substances is in some instances impossible to achieve, Commission Decision 2005/618/EC of 18 August 2005 amended RoHS by setting maximum tolerated concentration values for the substances specified in the directive.

Consequently the following limits apply to all new electrical and electronic equipment from 1 July 2006:

- Lead – 0.1% by weight in homogeneous materials
- Mercury – 0.1%
- Hexavalent chromium – 0.1%
- Polybrominated biphenyls (PBB) – 0.1%
- Polybrominated diphenyl ethers (PBDE) – 0.1%
- Cadmium – 0.01%.

RoHS is enacted in EU Member States by corresponding national legislation.

All Interpon powder coatings supplied for use in electrical and electronic equipment are compliant with the RoHS Directive. Please contact your local powder coating supplier for further information.

Issue	01	02	03	04	05	06	07	08
DCR	43148							

DEK STANDARD ENGINEERING INSTRUCTION

Title

Page 5 of 7

POWDER COAT PALE GREY (RAL7035)

DSF2.9.36

SAFETY DATA SHEET

PC010

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

Product name: Interpon Powder Coating
Intended use: Electrostatic coating for use in industrial plants
Address: Akzo Nobel Powder Coatings Ltd.,
Stoneygate Lane, Felling,
Tyne & Wear, NE10 0JY
0191 4696111
Emergency phone number: See above (ask for UK Powder Laboratory)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the Chemicals (Hazard Information & Packaging for Supply) Regulations: NONE

3. HAZARDS IDENTIFICATION

This product is not classified as dangerous according to the Chemicals (Hazard Information & Packaging for Supply) Regulations. Based on the composition and performed toxicity studies with the product, the preparation can be considered as an inert dust. Precautions should be taken to prevent the formation of dust in concentrations above flammable, explosive or occupational exposure limits.

4. FIRST AID MEASURES

General:
In all cases of doubt or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation:
Remove to fresh air, keep the patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.
Eye Contact:
Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.
Skin Contact:
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners.
Ingestion:
If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:
Recommended: Alcohol resistant foam, CO₂ blanket, water spray/mist.
Not to be used: High-pressure inert gas (e.g. CO₂), water jets
Recommendations:
Fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Exposure to decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing dust. Refer to protective measures listed in Sections 7 and 8. Contain and collect spillages with an electrically protected vacuum cleaner or by wet brushing and place in a closed container for disposal in accordance with the waste regulations (see Section 13). Do not use a dry brush as dust clouds or static can be created. Do not allow to enter drains or watercourses.
If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the relevant environmental agency.

7. HANDLING AND STORAGE

Handling:
It is recommended that advice is taken from a competent occupational health practitioner on the assessment of employees with skin or respiratory complaints before the individual is exposed to this product.
Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits.
Electrical equipment and lighting should be protected to appropriate standards and to prevent dust coming into contact with hot surfaces, sparks or other ignition sources.
Keep the container tightly closed. Exclude sources of heat, sparks and open flame. Avoid eye contact.
Avoid the inhalation of dust, particulates and spray mist arising from the application of this preparation.
Treatments such as sanding, welding, burning off, etc. of paint films may generate hazardous dust and/or fumes. Work in well ventilated areas. Use suitable personal protective equipment as necessary.
Smoking, eating and drinking should be prohibited in areas of storage and use.
Comply with health and safety at work laws.
For personal protection see Section 8.
Always keep in containers made of the same material as the supply container.
Good housekeeping standards and regular safe removal of waste materials will minimise the risks of spontaneous combustion and other fire hazards.
The product may charge electrostatically. Use earthing leads when transferring from one container to another.
Operators should wear anti-static footwear and clothing and floors should be electrically conductive.
The Manual Handling Operations Regulations may apply to the handling of containers of this product. Refer to the guide weight indicated on the container when carrying out assessments.

Issue	01	02	03	04	05	06	07	08
DCR	43148							

DEK STANDARD ENGINEERING INSTRUCTION

Title

Page 6 of 7

POWDER COAT PALE GREY (RAL7035)

DSF2.9.36

SAFETY DATA SHEET

PC010

Storage:

Observe the label precautions. Store between 5 and 25°C in a dry, well-ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorised access. Containers that are opened should be properly resealed and kept upright to prevent leakage. The principles contained in the HSE guidance note Chemical Warehousing: Storage of Packaged Dangerous Substances should be observed when storing this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

It is recommended that advice is taken from a competent occupational health practitioner on the assessment of employees with skin or respiratory complaints before the individual is exposed to this product.

Engineering Measures:

Avoid the inhalation of dusts. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of dusts below the relevant occupational exposure limit, suitable respiratory protective equipment should be worn (see 'personal protection' below).

Exposure Limits:

Coating powders should be treated as nuisance dusts and the general 8 hour time weighted average, occupational exposure standards for dusts are:-

Inhalable dusts 10 mg/m³
Respirable dusts 4 mg/m³

Personal Protection:

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

Respiratory Protection:

Suitable respiratory protective equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational exposure limit and engineering controls and methods cannot reasonably be improved.

Hand Protection:

For prolonged or repeated contact, use barrier cream or general industrial gloves. Suitable materials include lightweight vinyl or nitrile rubber gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Breakthrough time of gloves not applicable to powder coatings. Barrier creams may help to protect exposed areas of the skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

Eye Protection:

Eye protection designed to protect against exposure to dusts should be worn when there is a likelihood of exposure.

Skin Protection:

Cotton or cotton/synthetic overalls or coveralls are normally suitable. Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at the neck and wrists through contact with the powder are avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	fine powder
Specific gravity:	1.2 - 1.9
Minimum explosive concentration (LEL):	20-70 g/m ³ *
Solubility in water:	insoluble
Minimum ignition temperature:	400°C
Minimum ignition energy:	5-20 mJ
(Coating powders, being fine organic materials can give rise to dust explosions, typically rated St 1)	

* Determined LELs on a range of typical coating powders lie between these values, depending on the specific physical and chemical properties.

10. STABILITY AND REACTIVITY

Stable under the recommended storage and handling conditions (See Section 7). In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide and oxides of nitrogen may be produced.

11. TOXICOLOGICAL INFORMATION

There are no data available on the product itself. Coating powders can cause localised skin irritation in folds of the skin or in contact with tight clothing.

12. ECOLOGICAL INFORMATION

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters. The preparation has been assessed following the Chemicals (Hazard Information and Packaging for Supply) Regulations and is not classified as dangerous for the environment.

The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.

Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the Environmental Protection Act.

Issue	01	02	03	04	05	06	07	08
DCR	43148							

DEK STANDARD ENGINEERING INSTRUCTION

Title

Page 7 of 7

POWDER COAT PALE GREY (RAL7035)

DSF2.9.36

SAFETY DATA SHEET

PC010

The Environment Agency for England and Wales has determined that all coating powder wastes should be classified under the European Waste Catalogue entry 08 02 01 coating powders, regardless of its hazardous properties. Where the waste would otherwise be classified as hazardous, the guidance given in Sections 1.8 and 1.9 of the Waste Management Duty of Care Code of Practice should be followed.

14. TRANSPORT INFORMATION

Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.

This product is not classified as dangerous for carriage. It is primarily a mixture of polyester resins, hardeners, pigments and fillers and is not classified as explosive, oxidising, toxic, infectious, radioactive, corrosive or magnetic and its flash point (closed cup) is higher than 60.5°C (141°F) so according to IATA and ICAO annex 18 regulations, it is proved not to be dangerous for air transport.

15. REGULATORY INFORMATION

The product is determined as not being dangerous according to the requirements of the Chemicals (Hazard Information & Packaging for Supply) Regulations and is labelled as follows:

Label classification: none
Risk phrases: none
Safety phrases: S20/21: When using, do not eat, drink or smoke
S22: Do not breathe dust
S38: In case of insufficient ventilation, wear suitable respiratory equipment

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

16. OTHER INFORMATION

The information in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging for Supply) Regulations.

The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

The information contained in this safety data sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular application.

Further information and relevant advice can be found in:

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002:1689)

The Application of Powder Coatings by Electrostatic Spraying (Code of Safe Practice) from the British Coatings Federation (01372 360660)

The Manual Handling Operations Regulations 1992 (SI 1992:2793)

Chemical Warehousing: Storage of Packaged Dangerous Substances HS(G)71

The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839)

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (SI 2002:2677)

Issue	01	02	03	04	05	06	07	08
DCR	43148							