



TECHNICAL DATA SHEET

STOKES POLYESTER POWDER COATINGS (T.G.I.C. FREE)

Reference	Revision No	Revision Date	Printed	Page 1 of 2
SPPTF	2	27 April 2000	2 April 2009	

WWW.RJSTOKES.CO.UK MANUFACTURERS OF INDUSTRIAL, DECORATIVE & POWDER COATINGS Est 1899
Little London Road | Sheffield | S8 0UH | Tel: 0114 258 9595 | Fax: 0114 250 9836 | Email: sales@rjstokes.co.uk

Properties and Uses	<p>PROPERTIES</p> <p>Powder Coatings from this range are specially formulated without using T.G.I.C. curing agents and are designed to be used for both interior and exterior applications. Fully cured coatings exhibit excellent lightfastness, good weather resistance, flexibility and adhesion.</p> <p>Supplied for application by electrostatic spray.</p> <p>USES</p> <p>Suitable for use on industrial plant, equipment and fittings which need to withstand harsh environmental conditions.</p>
Technical Data	<p>TYPE</p> <p>Polyester resin system free from T.G.I.C.(Triglycidyl Isocyanurate) curing agents. Contains carefully selected light and heat stable pigments, resins, extenders etc. to achieve the desired colour and finish.</p> <p>CURING SCHEDULE</p> <p>Most powders are formulated to cure within 10 mins. at 180°C (metal temperature). For alternative curing schedules please contact our technical department.</p> <p>Note: The total curing time of the coating is dependant on several factors</p> <ol style="list-style-type: none"> 1. The metal substrate. 2. The gauge or mass of the metal. 3. The type of oven used i.e. box, conveyorised convection or infra - red etc. <p>The effective curing time commences when the object has reached the required temperature. Unless the powder is cured for the correct time and temperature the chemical reaction will not take place and the optimum performance to the coating will not be achieved. Similarly curing the powder for too long at a higher temperature could cause embrittlement of the coating or colour changes to occur.</p> <p>HEAT STABILITY</p> <p>Satisfactory up to 160°C for intermittent periods or for longer periods at 120°C.</p> <p>LEAD CONTENT</p> <p>Normally powders are supplied using lead free materials. Under certain conditions to meet customers specific requirements low soluble lead pigments might be used. Whenever this occurs the powder containers will be labelled according to the current labelling regulation requirements.</p> <p>Powders can be prepared to meet the requirements of the 'Safety of Toys Regulations' by special request.</p> <p>CHEMICAL RESISTANCE</p> <p>Good resistance to acids, alkalis and oils but may be effected by immersion in ketones and chlorinated solvents.</p> <p>FILM PROPERTIES</p> <p>Mechanical testing carried out on polished steel panels and durability tests on zinc phosphated steel panels.</p> <p>Gloss - levels between 20 - 95% (BS 3900 Part D5 60° angle) can be supplied.</p> <p>Flexibility - passes 3 mm bend test (BS 3900 Part E1)</p> <p>Impact Resistance - passes 2.5 mm direct and reverse impact tests (BS 3900 Part E3)</p> <p>Scratch Resistance - passes 3 kilo (BS3900 Part E2)</p> <p>Cross Hatch Adhesion - Passes Grade (BS3900 Part E6)</p> <p>Surface Hardness - Passes H Pencil Hardness (ASTM 3363)</p> <p>Boiling Water - Resistant.</p> <p>Salt Spray - Passes 1000 Hours (BS3900 Part F4)</p> <p>Humidity - Passes 1000 Hours (BS3900 Part F2)</p> <p>Chemical Resistance - Good resistance to acids and oils but may be affected by Ketones and Chlorinated solvents.</p>
Stock Container Sizes	20 Kilogram boxes (other sizes by special request).



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Processes	<p>PREPARATION It is essential that the surface to be coated is clean, dry, and free from grease, dust, dirt, rust, peeling or loose material or any other contamination.</p> <p>FINISHING Steel - It is advisable to carry out phosphate pre-treatment in order to obtain superior protection against corrosion.</p> <p>Aluminium - Before powder coating apply either a thin coat of Stokes Twin Pack Etch Primer Ref. IP053 or apply a chromate conversion coating.</p> <p>Galvanising - Same pre-treatment as aluminium but it recommended to heat the metal surface to 5 - 10°C above the curing temperature of the powder coating to carry out the 'degassing' of the galvanising.</p>
Application	<p>Apply by electrostatic powder spray equipment.</p> <p>It is essential that the source of compressed air to fluidise and propel the powder is free from oil and water which could cause contamination of the powder coating. Pre-heating of the articles to be coated i.e. castings etc., will greatly increase the capability of producing thick films. Coatings of the order of 200 microns have been achieved by this method. The jigs from which the articles to be coated are suspended should be kept clean especially the contact point so that a good earth potential is obtained.</p> <p>The excess powder (overspray) not attracted to the articles being sprayed can be recovered by means of a suitable powder recovery plant and after sieving to remove any foreign matter can be incorporated into fresh powder for re-use. To avoid contamination when using different colours it is essential that thorough cleaning of the plant is carried out between both colour changes and types of powder.</p>
Storage	<p>Use within 12 months of delivery.</p> <p>Keep in original containers until required for use.</p> <p>Partly used containers should be re-sealed and stored in accordance to the recommended manner. (See section 7 of Stokes Material Safety data Sheet Ref. POW)</p>
Health and Safety	<p>REFER TO STOKES MATERIAL SAFETY DATA SHEET REF. POW FOR FULL DETAILS OF FIRST AID, FIRE FIGHTING, ACCIDENTAL RELEASE, HANDLING, EXPOSURE CONTROLS / PERSONAL PROTECTION AND DISPOSAL.</p>
Disclaimer	<p>The above information is for guidance only. It is given in good faith but without warranty. Users should first carry out their own trials to ascertain the suitability of the product for their intended purpose.</p> <p>This Data Sheet supercedes all previous Data Sheets supplied to you relating to this product. It contains important information which must be communicated to the user. The user must satisfy himself of the suitability of the product for the intended application and surface, as surface and application conditions are beyond the control of R.J.Stokes & Co Ltd. The user must also satisfy himself of the suitability of the product in circumstances other than those set out in this data sheet. The user should also maintain appropriate control procedures. Should further information be required, please contact our Technical Department.</p> <p>R.J.Stokes & Co. Ltd. employ a policy of continuous development and the technical data could be revised as a result of experience or new information becoming available.</p>