



**VICOTE®**

VICTREX® PEEK COATING TECHNOLOGY

## VICOTE® FLAME SPRAY 702/705 COATINGS

### Quick 10 Step Guide For Optimum Results

**1** The recommended flame spray equipment for VICOTE Coatings is the Alamo Supply Co. Ltd. PG550™ with the polymer nozzle fitted.

**2** The substrate should be thoroughly de-greased with a suitable solvent to remove any contaminants. Thermal baking is also suitable for steel substrates.

**3** Grit blast the substrate to give a surface profile of ~20% of the total coating DFT (Dry Film Thickness). A final solvent wash of the substrate is advisable.

**4** If the VICOTE powder has been stored in an area of high humidity then it should be dried in a shallow tray before use; 150°C (302°F) for 3 hours or 120°C (248°F) overnight is recommended. Normally however the powder does not require drying for this process.

**5** When drying VICOTE powder in an oven, ensure that the powder is covered with aluminium foil to prevent cross contamination which could lead to defects in the final coating.

**6** The flame spray equipment that is to come into contact with the VICOTE powder must be thoroughly stripped and cleaned to remove all vestiges of previously used non VICOTE powders. The gun and nozzle should be completely stripped down and ideally washed with a mild detergent and then dried thoroughly. If this step is not undertaken the finished coating may contain surface defects.

**7** For coating aluminium, pre-heating of the substrate up to 230°C (446°F) is required to get the optimum adhesion and flow out without impairing the mechanical properties of the aluminium. For steel substrates a higher pre-heat temperature up to 370°C (700°F) can be utilised if required to get improved flow out of the VICOTE Coating.

**8** Optimum gas settings for VICOTE Coatings are as follows:

- Nitrogen Carrier Gas – 55 to 60 psi
- Oxygen - 40 psi
- Propane – 20 psi
- Gun Air – 40 psi
- Powder Air – 20 psi

**9** Start spraying around the edges of the part to be coated and then fill in the areas in between – this helps to keep the substrate hot if the part is a thin section. The VICOTE Coating should have a “wet” appearance as it coated onto the metal substrate.

**10** Coating with the gun nozzle held at 90° – 60° angle to the substrate gives the optimum results with the lowest porosity. The gun nozzle should be held at a distance of ~ 150 – 200 mm (6 – 8 inches) from the substrate.

For further technical assistance please contact your local Victrex office or Technical Centre.



High Temperature Performance Coatings For Flame Spraying

www.vicote.com



Victrex Polymer Solutions, a division of Victrex plc, is the world's leading manufacturer of Polyaryletherketones, high performance polymers, which are sold under the brand names VICTREX® PEEK polymer, VICOTE® Coatings, APTIV® films and VICTREX Pipes™. With production facilities in the UK backed by sales and distribution centres serving more than 30 countries worldwide, our global market development, sales, and technical support services work hand-in-hand with OEMs, designers and processors offering assistance in the areas of processing, design and application development to help them achieve new levels of cost savings, quality, and performance.

**World Headquarters**

Victrex plc  
Hillhouse International  
Thornton Cleveleys  
Lancashire FY5 4QD  
United Kingdom  
Tel: + (44) 1253 897700  
Fax: + (44) 1253 897701  
Email: victrexplc@victrex.com

**Americas**

Victrex USA Inc  
300 Conshohocken State Road  
Suite 120  
West Conshohocken, PA 19428  
USA  
Tel: + (1) 800-VICTREX  
Tel: + (1) 484-342-6001  
Fax: + (1) 484-342-6002  
Email: americas@victrex.com

**Europe**

Victrex Europa GmbH  
Langgasse 16  
65719 Hofheim/Ts.  
Germany  
Tel: + (49) 6192 96490  
Fax: + (49) 6192 964948  
Email: eurossales@victrex.com

**Asia Pacific**

Victrex Japan Inc.  
Mita Kokusai Building Annex  
4-28, Mita 1-chome  
Minato-ku  
Tokyo 108-0073  
Japan  
Tel: +81 (0)3 5427 4650  
Fax: +81 (0)3 5427 4651  
Email: japansales@victrex.com

**Asia Pacific**

Victrex High Performance  
Materials (Shanghai) Co Ltd  
Part B Building G  
No. 1688 Zhuanxing Road  
Xinzhuang Industry Park  
Shanghai 201108  
China  
Tel: + (86) 21-6113 6900  
Fax: + (86) 21-6113 6901  
Email: sccsales@victrex.com

©Victrex Polymer Solutions

VICTREX PLC BELIEVES THAT THE INFORMATION CONTAINED IN THIS BROCHURE IS AN ACCURATE DESCRIPTION OF THE TYPICAL CHARACTERISTICS AND/OR USES OF THE PRODUCT OR PRODUCTS, BUT IT IS THE CUSTOMER'S RESPONSIBILITY TO THOROUGHLY TEST THE PRODUCT IN EACH SPECIFIC APPLICATION TO DETERMINE ITS PERFORMANCE, EFFICACY AND SAFETY FOR EACH END-USE PRODUCT, DEVICE OR OTHER APPLICATION. SUGGESTIONS OF USES SHOULD NOT BE TAKEN AS INDUCEMENTS TO INFRINGE ANY PARTICULAR PATENT. THE INFORMATION AND DATA CONTAINED HEREIN ARE BASED ON INFORMATION WE BELIEVE RELIABLE. MENTION OF A PRODUCT IN THIS DOCUMENTATION IS NOT A GUARANTEE OF AVAILABILITY. VICTREX PLC RESERVES THE RIGHT TO MODIFY PRODUCTS, SPECIFICATIONS AND/OR PACKAGING AS PART OF A CONTINUOUS PROGRAM OF PRODUCT DEVELOPMENT. VICTREX® IS A REGISTERED TRADEMARK OF VICTREX MANUFACTURING LIMITED. VICTREX PIPES™ IS A TRADEMARK OF VICTREX MANUFACTURING LIMITED. PEEK-ESD™, HT™, ST™ AND WG™ ARE TRADEMARKS OF VICTREX PLC. VICOTE® AND APTIV® ARE REGISTERED TRADEMARKS OF VICTREX PLC.

VICTREX PLC MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR OF INTELLECTUAL PROPERTY NON-INFRINGEMENT, INCLUDING, BUT NOT LIMITED TO PATENT NON-INFRINGEMENT, WHICH ARE EXPRESSLY DISCLAIMED, WHETHER EXPRESS OR IMPLIED, IN FACT OR BY LAW. FURTHER, VICTREX PLC MAKES NO WARRANTY TO YOUR CUSTOMERS OR AGENTS, AND HAS NOT AUTHORIZED ANYONE TO MAKE ANY REPRESENTATION OR WARRANTY OTHER THAN AS PROVIDED ABOVE. VICTREX PLC SHALL IN NO EVENT BE LIABLE FOR ANY GENERAL, INDIRECT, SPECIAL, CONSEQUENTIAL, PUNITIVE, INCIDENTAL OR SIMILAR DAMAGES, INCLUDING WITHOUT LIMITATION, DAMAGES FOR HARM TO BUSINESS, LOST PROFITS OR LOST SAVINGS, EVEN IF VICTREX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, REGARDLESS OF THE FORM OF ACTION.

