

# TECH LINE COATINGS, INC.



26844 ADAMS AVE. ♦ MURRIETA, CA 92562 ♦ USA  
PHONE 909-304-0498  
♦ FAX 909-461-9658

[WWW.TECHLINECOATINGS.COM](http://WWW.TECHLINECOATINGS.COM)

## TECHTREX™ 71000 SERIES

### PRODUCT DATA SHEET: 71000 HIGH PRESSURE LUBRICATION SELECTION DATA

#### CHEMICAL NAME / SYNONYMS:

POLYARYLEETHERKETONE/POLYETHERETHERKETONE

#### PRODUCT DESCRIPTION:

TECHTREX™ 71000 series thermoplastic coatings are formulated from Victrex® PEEK™. In a thin film TECHTREX™ 71000 allows a user to benefit from the advanced performance benefits commonly found in molded PEEK, in a spray applied coating. TECHTREX™ has excellent Chemical, Tribological, and Corrosion resistance, in one package. In addition the Physical properties of the Victrex® PEEK™ polymer have raised it to the premier position among thermoplastics.

TECHTREX™ is a water dispersed coating. Easily sprayed with conventional spray equipment.

#### RECOMMENDED USES:

TECHTREX™ can be used in a wide range of applications; Automotive, Aerospace, Fluid Transfer, Food Handling and Processing, Industrial, Marine, Oil and Gas Exploration, to name just a few.

Not for human implantation. Not recommended for Medical use.

TECHTREX™ 71000 series can be compounded with a wide variety of other materials. TECHTREX™ 71000 complies with the following specifications and regulations:

Composition requirements of FDA regulation 21CFR 177.2415 for repeated use in contact with food. (End users and processors should note that it is the responsibility of the manufacturer of the food contact article to assure compliance of the extractive limitations of 21 C.F.R. 177.2415.)

Sanitary Standard 20-20 as multiple-use plastics materials for use as product contact surfaces for Dairy equipment.

EEC directive 93/9/EEC for plastic in contact with foodstuffs.

Bell Helicopter Specification 299-947-362  
practacle

General Dynamics specification P6240

Ford worldwide specification WSK-M4D-838-A

**NOT RECOMMENDED FOR: Any substrate that cannot handle the required 750 °F cure.**

#### CHEMICAL RESISTANCE GUIDE:

Exposure	Splash	Fumes
Acids	Excellent	Excellent
Alkaline	Excellent	Excellent
Solvent	Excellent	Excellent
Fluids	Excellent	Excellent
Fuels	Excellent	Excellent
Salt	Excellent	Excellent
Water	Excellent	Excellent

(See Chemical Resistance Chart for greater detail)

**TEMPERATURE RESISTANCE:** Continuous to 500°F.

**FLEXIBILITY:** Very Good **WEATHERING:** Good

**ABRASION RESISTANCE:** Excellent

**SUBSTRATES:** May be applied to both ferrous and non-ferrous.

**TOPCOAT REQUIRED:** None Required

**SPECIAL TREATMENT:** None

**COMPATIBILITY WITH OTHER COATINGS:** TECHTREX™ 71000 may be used as a build-up base for other TECHTREX™, PEEK™ based formulations.

#### SPECIFICATION DATA

**THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL:** @ 35% WT

**RECOMMENDED DRY FILM THICKNESS PER COAT:** .001" to .0015"

**THEORETICAL COVERAGE:**

**BURNISHING:** None required.

**SHELF LIFE:** 1 year plus.

**COLOURS:** Dark Gray to Black for the Standard material, Amber to Brown for un-pigmented material.

**GLOSS:** Medium

#### ODERING INFORMATION

Prices may be obtained from Tech Line Coatings, Inc. sales representative or main office.

#### APPROXIMATE SHIPPING WEIGHT:

TECHTREX™ 71000 (1 gallon) = 4.0 Kilograms (9.0 lbs. US)

**FLASH POINT:** 0

**SURFACE PREPARATION:** All parts must be absolutely free of all oils, grease, moisture, dust, scale or corrosion.

**METALS:** For steel, sandblast with 80-100 grit aluminum oxide or similar. Softer metals, such as aluminum, use 100-120 grit aluminum oxide or similar at 35-40 PSI using a suction type blaster.

**FINAL CLEAN:** Before spraying the part must be thoroughly cleaned using air blast, hot water rinse, solvent base rinse, DO NOT USE petroleum based solvents, or any other method that provides a clean dry surface.

**MIXING:** Stir well. Disperse all solids that may have settled to the bottom of the container.

**PRIMER:** No primer needed.

**APPLICATION TEMPERATURES:**

	<u>Material</u>	<u>Surfaces</u>	<u>Ambient</u>	<u>Humidity</u>
Normal	18-30°C	18-30°C	16-32°C	35-85%
Minimum	13°C	13°C	10°C	30%
Maximum	35°C	38°C	38°C	95%

**SPRAY:** Apply coating in light fog passes (approximately 10% overlap) to achieve a thickness of .001” to .0015”. Use sufficient air volume for correct operation of equipment. (Minimum 40 PSI to a maximum of 65 PSI) Minimum part temperature should be 55F or above. Spray at a right angle to part with a 1mm or smaller nozzle size. Spray all irregular surfaces and edges first, making an extra pass later. Check part for complete coverage. Part should be a gray/black color.

**GUN & Mfr.:** Any conventional unit. Recommended gravity feed type touch-up gun. (Important that nozzle size be 1mm or less)

**DRYING TIME:** Allow coating to air dry for at least 10 minutes at ambient. If top coating “flash” at 150f for 10 minutes after the air dry period has elapsed.

**FINAL CURE:** 750F for 20 minutes at temperature. Place dry coated part directly into the oven at cure temperature.

**Multi Coating:** Multiple coats of TECHTREX™ are possible. Bring an initial coat of 71000 to 710f for 10 minutes or until the coating gives evidence of beginning to "melt" and shows a darker color. Remove room the oven all to cool and apply a second coat. Repeat this process until the desired thickness is reached and then full cure at 750f. When it is desirable to apply a "filled" TECHTREX™ formula, such as #73000, TECHTREX™ 71000 should be used for the build coats and the final layer should be the "filled" formulation.

**VENTILATION AND SAFETY:** When used in enclosed areas, thorough air circulation must be provided during and after application until the coating is cured. The ventilating system should be capable of preventing fine particulate matter from exceeding TLV limits.

**CLEAN UP:** Water

**STORAGE CONDITIONS:** (Store indoors)

Temperature: 10-43°C Humidity: 0-100%

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Note: N/E = Not Established  
N/A = NO APPLICABLE



**APPLICATION INSTRUCTIONS**

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. Those instructions should be followed closely to obtain the maximum service from the materials.