

thyssenkrupp Engineered Plastics

Plastic Shapes for Aerospace

Engineered Plastics Solutions

AS9100D & ISO9001
Certified Locations



thyssenkrupp



Where Will You Find Engineered Plastics?

Control and Actuation Systems

- Control linkages and APU's
- Control surface bearings
- Clutch brakes
- Bushings and guides in control linkages

Subsystems

- Thermal and electrical insulators in Radar and RF systems
- Ball bearing retainers in avionics
- Electrical isolation in fuel system
- Valve seats in emergency exit regulators, oxygen life and support systems

Auxiliary Power Units

- Bushings
- Thrust washers
- Shaft bearings
- Seals

Mid-Air Refueling Systems

- Seal rings
- Hydraulic actuators

Brake Systems

- Coil bobbins

Nacelles and Engine Parts

- Thrust reverser channels
- Slide blocks and slider shoes
- Bushings and washers
- Wear pads, bumpers and strips
- Insulators and seals



Replacing Metals Every Day...

Advances in plastics technology equate to stronger parts that are significantly lighter, driving fuel saving and extending maintenance life cycles.



Authorized DuPont™ Vespel® Distributor

As an authorized distributor for DuPont™ Vespel® Shapes, tkEP ensures that every shape you purchase from us will arrive with a genuine tamper-evident and serialized label. In addition your Vespel® material will be accompanied by an official DuPont Certificate of Conformance.

We take our commitment to the aircraft and aerospace industries and to DuPont seriously. We will never substitute with another material or provide ground material.

SP-1 Unfilled polyimide

SP-21 15% Graphite filled

SP-22 40% Graphite filled

SP-211 Graphite/PTFE filled

SP-3 15% MoS2 filled

SP-202 Electrically conductive grade

SCP COPOLYMER POLYIMIDE

SCP-5000 Unfilled

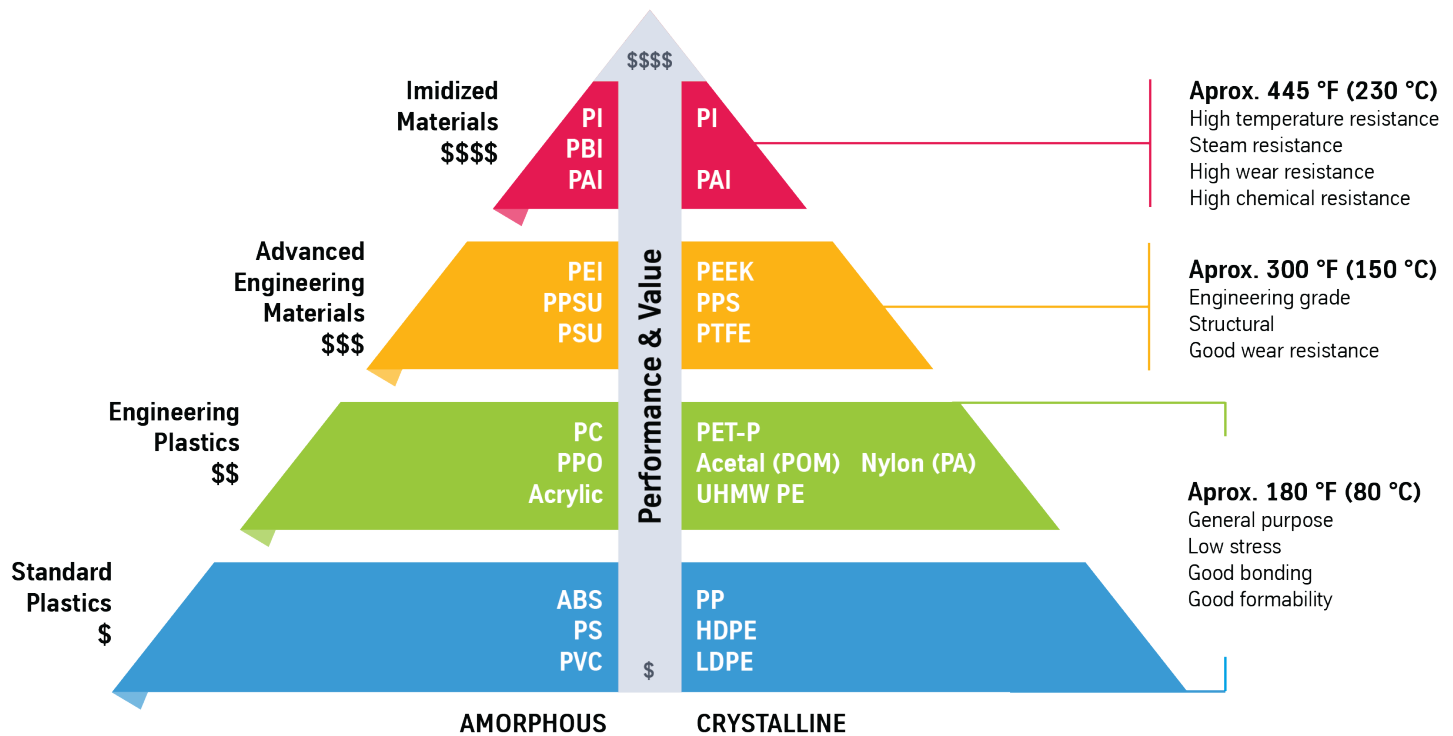
SCP-50094 Graphite filled

SCP-5050 High graphite filled

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Selecting Engineered Plastics Solutions



High Performance Plastics

Celazole® (PBI)	Noryl	PES	Sulfones
DuPont™ Vespel®	PAES	PPSU	SUSTAKON®
Duratron®	PAI	PSU	Techtron® (PPS)
ECTFE	PAS	Radel R®	Torlon® (PAI)
FEP	PCTFE	Rulon®	Ultem®
Fluorosint	PEEK	Ryton®	
Halar®	PEI	Semitron®	

High Pressure Laminates

CE	G-9, G-5
Composites	LE
Copper Clad	Micarta®
G-10/FR4, G-11	XX and XXX

Polyolifins and Corrosive Environment Materials

CPVC	Polypropylene
HDPE	PTFE
Kynar®	PVC
LDPE	PVDF

Special Solutions For Aircraft

Polycarbonate Aircraft Grade Mirror
Polyurethane Foam Products
Silicones

Same Day Shipping for Stocked Shapes*



877.246.7700

*In most cases. Contact us for inventory.

thyssenkrupp
Engineered Plastics

10 Corporate Drive
Auburn Hills, MI 48326



Materials as a Service

Our Value Added Services

We believe strong partnerships create end to end supply chain visibility. To help you reduce overall processing time and costs, we offer services such as:

- Subcontractor management and support
- System Integration
- Global Key Account Managers with centralized control towers
- Customer Specific Dedicated facilities
- Demand Aggregation

Processing Equipment Capabilities

Milling Departments

- (2x) Haas VF-6SS (64" X 32" X 30") 5th Axis Capable / 12,000 RPM Spindle
- Thru Spindle Coolant for Deep Hole Drilling
- (2x) Haas VF-4SS (50" X 20" X 25") 5th Axis Capable / 12,000 RPM Spindle
- TM-1 Haas (10" x 30" x 16") 3-AXIS / 6,000 RPM Spindle

CNC Routers

- Routech Heavy Duty Single Spindle, (60" X 144" X 15") / 15,000 RPM
- Routech with Machining Head 5 interpolating axes (63" x 143") / 18,000 RPM
- Onsrud Single Spindle (60" X 192" X 15") / 25,000 RPM

Secondary Annealing

- Despatch LBB Annealing Oven 36" x 36" x 36"

Turning Departments

- (2x) Haas DS-30SSY Lathe with Living Tooling with 3" Thru Spindle
- (2x) Haas ST-20SS Lathe with 2" Thru Spindle

Cutting Departments

- (2x) Gabbiani Galaxy 3 Panel Saws, Cuts up to 4.5" Sheet (12.5' X 12.5')
- Table Saw (Up to 12" Diameter) and Chop Saw (12")
- 14" Horizontal Marvel Rod Saw
- Grizzly Vertical Band Saws (Up to 24" Diameter)
- (3x) Castaly Repeat Shapers



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visit our online catalog at: www.onlineplastics.com