

# Plastics for Aerospace and Defense Applications



## Benefits of Plastic:

- Grades available that meet flame, smoke, and toxicity requirements
- High temperature and low temperature capabilities
- Resistance to aviation fuels and other chemicals
- Toughness and impact resistance
- Aesthetic qualities including color and surface texture
- Sealing characteristics
- Bearing and wear characteristics
- Transparency

## Engineering materials to meet your needs

Curbell Plastics has a broad inventory of plastic materials to meet the demanding performance requirements of the aerospace and defense industries. We know these industries require materials that stand up to extreme operating environments, and strictly adhere to specifications with lot and batch traceability.

Plastics are used for a wide range of aerospace and defense applications including bearing and wear components, seals, instrument panels, and locking fasteners.

## Material selection, expert advice

*"Curbell worked closely with our team as we selected materials for the next generation of our aerospace valves. With their help, we successfully extended the operating capabilities of our products."*

~ Curbell Customer Feedback

## TYPICAL APPLICATIONS:

- Aircraft tray tables
- Aircraft windows and canopies
- Air-return grills
- Arm rests
- Avionics instrument panels
- Bearings and bushings
- Composite tooling
- Interior components
- Locking elements for fasteners
- Seals
- Spines
- Valve seats
- Wire insulation

## COMMON MATERIALS:

- Acetal
- Acrylic
- Dupont™ Vespel® Polyimide Shapes
- FEP
- G-10 and FR-4 glass/epoxy
- Kydex® thermoplastic sheet
- Kynar® PVDF
- UL-recognized RTV silicones
- Nylon
- PEEK
- PFA
- Phenolic
- Plasma spray masking tape
- Polyamide-imide
- Polycarbonate
- Polyimide film
- Polyurethane and epoxy tooling resin
- PTFE
- PTFE Film Tapes
- Radel® R
- Ultem®



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PLASTICS

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1.888.CURBELL (287-2355)

# Curbell Plastics carries a full line of plastic materials and more...

## Engineering Materials

- ABS
- Acetal
- Acrylic
- CPVC
- Delrin®
- DuPont™ Vespel® Polyimide Shapes
- ESD materials
- ETFE
- FEP
- FM4910 materials
- Food grade materials
- FR-4
- G-10
- GPO - 1, 2, and 3
- Halar® (ECTFE)
- HDPE (high density polyethylene)
- HYDEX® 4101 (PBT)
- KYDEX® thermoplastic sheet
- Kynar® (PVDF)
- LDPE (low density polyethylene)
- Makrolon®
- Medical grade materials
- Metal detectable materials
- Noryl®
- NYLOIL®
- Nylon
- Nylon MD
- PBT
- PEEK
- PET
- PETG
- PFA
- Phenolic
- Polyamide-imide
- Polycarbonate
- Polyethylene
- Polypropylene
- Polystone®
- Polystyrene
- Polysulfone
- PPS (polyphenylene sulfide)
- PTFE
- PVC
- PVDF
- RADEL® R
- SANATEC®
- SentryGlas®
- Sustamid®
- SustaPEEK
- Sustarin®
- TECAFORM®
- TECAMID®
- TECAPEEK®
- TECAST VEKTON™
- Thermoset laminates
- UHMW-PE
- Ultem® (PEI)
- Urethane
- X-ray detectable materials

## Sign, Visual Merchandising, & Print Materials

- ABS
- Acrylic
- Acrylic, impact modified
- Acrylic mirror
- Acetate film and sheet
- Cast acrylic sheet
- CELTEC®
- Coroplast®
- Designboard®
- Dibond®
- Double patterned acrylic sheet
- DP-32 patterned acrylic sheet
- DURAPLAST®
- Dry erase board
- Engraving stock
- Ergonomic/anti-fatigue matting
- Expanded PVC
- FABBAC® mirror
- FiberMate™
- Flexible tubing
- Fome-Cor®
- Gatorfoam®
- Gatorplast®
- HDPE (high density polyethylene)
- HDU board
- HIPS film
- InSite®
- InteCel®
- InteClear™
- InteFoam®
- JetMount®
- KYDEX® thermoplastic sheet
- LDPE (low density polyethylene)
- Magnet board
- Makrolon®
- Mirror
- MUSTANG® Copolyester
- OPTIX®
- PETG
- Plastic lumber
- PLEXIGLAS®
- Polycarbonate sheet, mirror
- Polypropylene
- Polystyrene
- Precision Board Plus™
- PVC
- Rigid foams
- Ryno Board®
- See-thru mirror
- Simopor (light, color, digital)
- Sintra®
- Soft foams
- Solacryl® SUVT (UV transmitting acrylic)
- Spectar®
- Styrene
- Twin wall polycarbonate sheet
- Ultra Board
- Urethane foam board
- Vinyl
- VIVAK® PETG

## Plastic Films

- Acetate
- Acrylic
- Calendered vinyl
- Hardcoated film
- HDPE
- HIPS
- Kynar® PVDF
- LDPE
- Light diffusing film
- Makrofol® polycarbonate film
- Nylon
- PEEK
- PEN
- PETG
- Polycarbonate
- Polyester
- Polyimide
- Polypropylene
- Press polished vinyl
- Pressure sensitive vinyl
- PVC
- Scratch resistant vinyl
- Sign vinyl
- Static cling vinyl
- Styrene
- UHMW
- Ultem®
- Vinyl

## Prototyping, Mold Making, & Tooling Materials

- DSM Somos® SLA resins
- Momentive silicone mold making materials
- PTM&W liquid casting and laminating epoxies and casting urethanes
- RAMPF® modeling and tooling board

## Adhesives & Sealants

- 3M™ adhesives and tapes
- Aerosols
- Anaerobics
- Bostik adhesives
- Bulk dispensing equipment and cartridges
- Cyanoacrylates
- Epoxies
- Hot melts
- IPS® SCIGRIP®
- Methacrylates
- Momentive RTV silicones
- ITW Plexus® and ITW Devcon®
- Structural adhesives
- Urethanes
- Silane-terminated, Isocyanate-free polyurethanes
- UV adhesives

## Tapes, Fabrics, & Belts

- 3M™
- Aisle marking tape
- Anti-static fiberglass fabric
- Application tape
- Band Sealing Belts
- Circuit board tape
- Crepe paper masking tape
- Differential adhesive tape
- Double sided tape
- Fiberglass cloth tape
- Fluorescent tape
- Foam Tape
- Friction tape
- Gaffer's tape
- Glow-in-the-dark tape
- Heat sealing tape
- HVOF Tape
- Magnetic tape
- Mechanical grade belts
- Metal foil tape
- Mounting tapes
- Mylar®/polyester tape
- Plating tape
- Polyester splicing tape
- Polyimide tape
- PTFE coated fiberglass tapes, fabrics, and belts
- PTFE high modulus tape
- PTFE skived tape
- Reflective tape
- Tear/crease resistant fabrics
- Thermal spray tape
- Transfer tape
- UHMW wear tapes
- Ultra high bond tapes
- VHB™ tape
- Vinyl tape
- Window glazing tape

## Orthotic & Prosthetic Materials

- Covering and cushioning
- Fabrication supplies
- Foams
- Plastic sheet
- Prosthetic materials
- Transfer paper

## OUR NATIONWIDE LOCATIONS OFFER:

- Local inventory
- Just-in-time delivery
- Cut-to-Size / Custom Cutting
- Packaging & Kitting
- Custom services
- Technical consult

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## Our material partners:



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