Industri<mark>al</mark> Au<mark>tomation</mark>

## **Material Descriptions**

## **Plastics**

ABS - Acrylonitrile-Butadiene-Styrene	Impact resistant, rigid. Resistant to aqueous acids, alkalis, salts, alcohols, oils, concentrated hydrochloric acid; disintegrated by concentrated sulfuric or nitric acids, esters, ketones
CPE, Thermoset (rubber cables)	Excellent resistance to oils, acids, chemicals, ozone, extreme temperatures, cuts, abrasions; flame retardant in welding applications
PA - Polyamide (nylon)	Good mechanical strength, temperature resistant
PA, Amorphous (Trogamid T)	Similar properties to nylon, but transparent. Hard, rigid, good chemical resistance.
PA 12-GF30	Nylon 12, 30% glass filled
PA 66-GF25-V0	Nylon 66, 25% glass filled, self-extinguishing
PBT - Polybutylene Terephthalate (when glass reinforced, Crastin®)	Good mechanical strength; resistant to abrasion; resistant to alcohols, oils, some acids, trichloroethylene
PBT-GF30-V0	PBT, 30% glass filled, self-extinguishing
PEI - Polyetherimide (Ultem®)	Excellent resistance to most commercial automotive fluids, fully hydrogenated hydrocarbons, alcohols, weak aqueous solutions. Withstands higher temperatures.
POM - Polyoxymethylene / Polyacetal (Delrin®)	High impact resistance; good mechanical strength; good resistance to oils, alcohols, alkalis, gasoline, xylene, toluene. Dielectric constant 3.7
PP - Polypropylene	Excellent resistance against chemicals including acids, solvents and solutions.  High temperature resistance and good mechanical strength
PTFE - Polytetrafluoroethylene (Teflon®)*	Optimum resistance against high temperature and chemicals; low dielectric constant (2.0)
TPU, Thermoplastic Polyurethane	Elastic, resistant to abrasion, impact-resistant, oil- and grease-tolerant
PVC - Polyvinylchloride	Good mechanical strength, viscosity to impact; resistant to acids, alkalis
PVC, irradiated	Heat and chemical resistant, withstands short-term temperatures to 482° F
PVDF - Polyvinylideneflouride (Kynar <sup>®</sup> )	Resistant to high and low temperatures, good resistance to chemicals (similar to PTFE), high mechanical strength
Silicon	For use at high or low ambient temperatures (-50+180 °C), moderate mechanical strength, average resistance against alkalis, acids, oils, and solvents
IRPA12 - Irradiated Polyamide (nylon)	Good mechanical strength, temp. resistant
EPTR - Elastomer, Polymer Thermal Plastic	Good fluid resistance
TROG - Trogamid T	Hard, rigid, good chemical resistance

## **Metals**

AG	armorguard ®
SS - 306 Stainless Steel	Excellent atmospheric resistance
СРВ	Chrome Plated Brass
CuZn - Brass	Generally good resistance to industrial atmospheres
GD - AlSi12 - Aluminum, die-cast	Low specific weight, long-life characteristics
GD - ZnAl4Cu1 (Z410) - Zinc, die-cast	Long-life characteristics
TC	Teflon Coated
WG	weldguard®
AL - Anodized Aluminum	Long-life characteristics
SF - Stoneface®	High abrasion resistance, excellent for MIG welding applications, high heat and weld flow immunity
TS - Tool Steel	Excellent durability