

Front End Component Recommendation Guide

Recommended Standards

Amorphous Materials					Screw Type	Recommended Material	Barrel Material	Standard NRV Type	Optional High Performance Options
Abbrev.	Trade Name	Common Name	Filler/Additive	Screw Type					
ABS	Cycolac	Acrylonitrile-Butadiene-Styrene	None	2:1	Corr/Wear Resistant	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
ABS	Cycolac	Acrylonitrile-Butadiene-Styrene	<30% Glass	2:1	Corr/Wear Resistant	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
ABS	Cycolac	Acrylonitrile-Butadiene-Styrene	>30% Glass	2:1	Corr/Wear Resistant	Tungsten Carbide	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
ABS	Cycolac	Acrylonitrile-Butadiene-Styrene	Flame Retardant	2:1	Corr/Wear Resistant	Tungsten Carbide	4PC Stainless	---	
PC	Lexan	Polycarbonate	None	2:1	Corr/Wear Resistant	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PC	Lexan	Polycarbonate	Fiberglass <30%	2:1	Corr/Wear Resistant	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PC	Lexan	Polycarbonate	Fiberglass >30%	2:1	Corr/Wear Resistant	Tungsten Carbide	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
ABS & PC	Pulse	ABS & Polycarbonate	<30% Glass	2:1	Carbide Coated	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PEI	Ultem	Polyether-Imide	None	3:1	Nitrided	Bimetallic	4PC Stainless	---	
PEI	Ultem	Polyether-Imide	Fiberglass <30%	3:1	Carbide Coated	Bimetallic	4PC Stainless	---	
PEI	Ultem	Polyether-Imide	Fiberglass >30%	3:1	Carbide Coated	Tungsten Carbide	4PC Stainless	---	
PMMA	Plexiglas	Acrylic-Polyethyl-Methacrylate	None	2:1 or 3:1	Wear Resistant	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PPO	Norvl	Polyphenylene Oxide	None	2:1	Corr/Wear Resistant	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
HIPS	Styron	High Impact Polystyrene	None	3:1	Carbide Coated	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PPO	Norvl	Polyphenylene Oxide	<30% Glass Mineral	2:1	Corr/Wear Resistant	Tungsten Carbide	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PVC	Geon	Polyvinylchloride-Rigid	None	2:1	Corr/Wear Resistant	Tungsten Carbide	3PC Open Flow	4PC Cont. Taper	
PVC	Amaco	Polyvinylchloride-Rigid	None	2:1	Corr/Wear Resistant	Tungsten Carbide	Stainless Smear Tip	3PC FTR valve	
PVC	Geon	Polyvinylchloride-Flexible	None	3:1	Carbide Coated	Bimetallic	3PC H-13	4PC Stainless	
SAN	Luran	Styrene Acrylonitrile	None	3:1	Nitrided	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
Crystalline Materials					Screw Type	Recommended Material	Barrel Material	Standard NRV Type	Optional High Performance Options
Abbrev.	Trade Name	Common Name	Filler/Additive	Screw Type					
CA	Tenite	Cellulose-Acetate	None	3:1	Nitrided	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
CA	Tenite	Cellulose-Acetate	Flame Retardant	2:1	Corr/Wear Resistant	Tungsten Carbide	4PC Stainless	---	
LCP	Vectra	Liquid Crystal Polymer	<30% Glass	3:1	Carbide Coated	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PA	Zytel	Polyamide (Nylon)	None	3:1	Nitrided	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PA	Zytel	Polyamide (Nylon)	Fiberglass <30%	3:1	Carbide Coated	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PA	Zytel	Polyamide (Nylon)	Fiberglass >30%	3:1	Carbide Coated	Tungsten Carbide	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PA	Zytel	Polyamide (Nylon)	Flame Retardant	3:1	Carbide Coated	Tungsten Carbide	4PC Stainless	3PC H-13 w/Carbide Inserts	
PBT	Rynite	Polyester Thermoplastic	None	3:1	Nitrided	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PBT	Rynite	Polyester Thermoplastic	Fiberglass <30%	3:1	Carbide Coated	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PBT	Rynite	Polyester Thermoplastic	Fiberglass >30%	3:1	Carbide Coated	Tungsten Carbide	3PC H-13	3PC H-13 w/Carbide Inserts	
PBT	Valox	Polyester Thermoplastic	None	3:1	Nitrided	Bimetallic	4PC Stainless	3PC H-13 w/Carbide Inserts	
PBT	Valox	Polyester Thermoplastic	Fiberglass <30%	2:1	Corr/Wear Resistant	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PBT	Valox	Polyester Thermoplastic	Flame Retardant	2:1	Corr/Wear Resistant	Tungsten Carbide	4PC Stainless	---	
HDPE	Marlex	Polyethylene	None	3:1	Nitrided	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
HDPE	Marlex	Polyethylene	Carbon Black	3:1	Nitrided	Tungsten Carbide	3PC H-13	3PC H-13 w/Carbide Inserts	
HDPE	Marlex	Polyethylene	Flame Retardant	3:1	Carbide Coated	Tungsten Carbide	4PC Stainless	---	
PET	Ektar	Polyethylene Terephthalate	None	3:1	Nitrided	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PET	Ektar	Polyethylene Terephthalate	Fiberglass <30%	3:1	Carbide Coated	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PET	Ektar	Polyethylene Terephthalate	Fiberglass >30%	3:1	Carbide Coated	Tungsten Carbide	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
POM	Delrin	Acetal-Homopolymer	None	3:1	Carbide Coated	Tungsten Carbide	4PC Stainless	---	
POM	Delrin	Acetal-Homopolymer	Fiberglass <30%	3:1	Carbide Coated	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
POM	Delrin	Acetal-Homopolymer	PTFE	3:1	Nitrided	Bimetallic	3PC H-13	4PC Stainless	
PP		Polypropylene	None	3:1	Nitrided	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
PP		Polypropylene	Fiberglass <30%	3:1	Carbide Coated	Bimetallic	3PC H-13	3PC H-13 w/Carbide Inserts	
PP		Polypropylene	Fiberglass >30%	3:1	Carbide Coated	Tungsten Carbide	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
		* High Screw Speed Molding	Non-filled	3:1	Carbide Coated	Bimetallic	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	
		* High Screw Speed Molding	Filled	3:1	Carbide Coated	Tungsten Carbide	3PC H-13 w/Carbide Inserts	3PC H-13 w/Carbide Inserts	

Screw recommendations vary based on your specific application. Consult our Parts department or visit us online at <https://onlinestore.dpg.com/>