

Thixomolding Finishes

PROCESS	COST	RoHS COMPLIANT (Y/N)	CONDUCTIVE (Y/N)	PROTECTION	COSMETICS	DURABILITY	YIELD	DIMENSIONAL CHANGE	BENEFITS
CONVERSION COATING									
TCP (Trivalent Chromate Process)	\$	Y	Y	Minimum Protection	Medium to dark Gray	Low Durability	High Yield	no appreciable change	Great base coat, enhanced corrosion resistance, enhanced bonding ability
NCP (Non-Chromate Passivation)	\$	Y	Y	Minimum Protection	Medium to dark Gray	Low Durability	High Yield	no appreciable change	Great base coat, enhanced corrosion resistance, enhanced bonding ability
Phosphate	\$	Y	Y	Minimum Protection	Medium to dark Gray	Low Durability	High Yield	no appreciable change	Great base coat, enhanced corrosion resistance, enhanced bonding ability
NH-35	\$	N	Y	Medium Protection	Light yellow to matte gray	Low Durability	High Yield	no appreciable change	Great corrosion coat, 1/5 chromium content of Dow 20, enhanced bonding ability
ELECTROSTATIC PAINT									
E-Coat	\$	Y	N	Medium Protection	Black	Prone to Scratches	Medium Yield	0.3 mil - 0.6 mil	Consistent thickness, good chemical and abrasion resistance
ANODIZING PRETREATMENT									
Tagnite ceramic	\$\$	Y	N	High Protection	Off White	Very Durable	High Yield	0.2 mil - 0.5 mil	Very Durable, great paint base coat, great corrosion and oxidation resistance
Anomag ceramic	\$\$	Y	N	High Protection	Off White	Very Durable	High Yield	0.2 mil - 0.5 mil	Durable, great paint base coat, good corrosion and oxidation resistance
Keronite ceramic	\$\$	Y	N	High Protection	Off White	Very Durable	High Yield	0.2 mil - 0.5 mil	Very Durable, great base coat, great corrosion resistance, good thermal barrier, ceramic coating
PLATING									
Electroless Nickel	\$\$\$\$	N	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 0.5 mil	High Hardness and wear resistance, excellent corrosion resistance, good solderability
Black Nickel	\$\$\$\$	N	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 0.5 mil	Good durability, low reflectivity, good wearability, good corrosion resistance
High Phosphorus Electroless Nickel	\$\$\$\$	Y	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 0.5 mil	Max corrosion resistance, solderable, excellent diffusion barrier
Electrolytic Nickel	\$\$\$\$	N	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 0.5 mil	Excellent corrosion protection, good wear and abrasion resistance, good base coat
Silver	\$\$\$\$	Y	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 0.5 mil	Exceptional Solderability, High resistance to heat, Highly ductile
Copper	\$\$\$\$	Y	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 0.5 mil	Good corrosion protection, good coverage, High electrical conductivity
Chrome	\$\$\$\$	N	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 0.7 mil	Good durability, good wearability, good corrosion resistance
Black Chrome	\$\$\$\$	N	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.1 mil - 0.7 mil	Good durability, low reflectivity, good wearability, good corrosion resistance
Tin	\$\$\$\$	Y	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.1 mil - 0.7 mil	Excellent conductivity, excellent solderability, bright finish, resistant to fingerprints and tarnish
Tin-Lead (reflow or matte)	\$\$\$\$	N	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.1 mil - 0.7 mil	Excellent conductivity, excellent solderability, bright finish, resistant to fingerprints and tarnish
Gold	\$\$\$\$	Y	Y	High Protection	Non-Cosmetic Metal Look	Very Durable	Medium to Low Yield	0.2 mil - 1.5 mil	Good wear resistance, good conductivity, good contact resistance, good corrosion protection
POWDER COATING	\$\$\$\$	Y	N	High Protection	Many Options	Very Durable	High Yield	generally 2 mil - 5 mil	Uniform thickness, durable, high quality, attractive, good corrosion resistance, good chemical resistance, good abrasion and wear resistance, available in all colors
WET PAINT	\$\$\$\$	Y	Y	Medium to High Protection	Many Options	Prone to Scratches & Scuffing	High Yield	thickness as specified	Good chemical and stain resistance, high gloss and flexible finishes possible, excellent adhesion properties, multiple coat capable, wet on wet or base / clear, conductive coatings available
DRY FILM LUBRICATION	\$\$	Y	N	High Protection	Few Options	Low Durability	High Yield	no appreciable change	Applied to surfaces that are difficult or impossible to lubricate, good corrosion protection, coated surface of the part is dry and does not attract dirt and sand