

# Mold Coating – Decision Chart

TM Coating	TM 105	Armatech	TM 103	TM-117C/ TM-117P	OptaKcoat	E-Krome	UltraKcoat
General Description of Coatings	Microcracked or Thin Dense Chrome	Similar to Armaloy	Electroless Nickel High Phosphorous 10-12%	Electroless Nickel Co-Deposit of Teflon	Electrolytic Alloy Deposit of Nickel Phosphorus	Electroless Alloy Deposit	Electroless Alloy Deposit
MOLDING ATTRIBUTE DESIRED: ↓	⊗ * ● □	⊗ * ● □	● ▲	15-25% PTFE ● ▲ ▲ ● 5-10% PTFE	● ▲	● ◆	● ◆
Corrosion Resistance Excellent=10 Carbon Steel=0	5	6	9	8	10	7	7
Wear Resistance P20 Steel=5 Best Coating=10	8	10	6-8 Dependent on Resin Material	7-9 Dependent on Resin Material	6-8	6-9 Dependent on Resin Material	6-9 Dependent on Resin Material
Hardness Rockwell C *Heat Treatment 600F	67-72 RC	70-72	48-49 60-62*	36	48-50 60-62	60-64 66-69*	55-60 64-69*
Uniformity of Deposit Perfect=100%	25%	60%	100%	100%	70%	100%	100%
Lubricity	Fair	Fair	Good	Excellent	Very Good	Good	Superior
Release	Good	Good	Good	Superior	Good	Good	Excellent
Thickness Capability (in inches)	.010+	.0003	.003	.0005	.010+	.005	.003
Thickness Recommended (in inches)	.0001 to .0005	.0001-.0003	.0003 to .001	.0001 to .0005	.005+	.0003 to .0005	.0003-.0005
Molded Part Enhancement	Great Wear Release	Excellent Sliding Wear	Uniform Heavy Deposit to Conserve Plastic	Improves Plastic Flow	Flawless finish & Diamond Turnable	Excellent for Molding on Aluminum	Ultimate plating, Flow, Wear Release
Appearance of Coating	Bright	Satin Non-Reflective	Semi Bright Like Stainless Steel	Light Grey Semi Bright	Semi Bright Like Stainless Steel	Polished Stainless	Satin Stainless Steel
Repair of Coating	Brush Plate	Strip Re-plate	Brush Plate	Strip Re-plate	Brush Plating	Strip Re-plate	Strip Re-Plate
Chemical Stripping of Coating	Good	Good	Slow	Slow	Machine Only	Good	Good
Cautions	Avoid Chlorides □			Avoid Synthetic Rubber Containing Sulfur Compounds ▲ Some Concern for Synthetic Rubber Containing Sulfur Compounds ◆			
Base Material that can be Plated	Steel, Stainless Steel, Tool Steel, Brass and Bronze (Aluminum must receive a deposit of Electroless Nickel first) ⊗			Any Metal Ferrous and Non Ferrous ● Retains Release Agents and/or oil *			

Please Note: To prevent damage of a part, it is important that the plater be made aware of the mold material including any spray metal or welds prior to processing.

The above is a guideline only. Techmetals does not warrant or guarantee any of these coatings for specific use. Coatings need to be proven on a case by case scenario.

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For More Details on each Coating, Contact



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