



# TefCote™ Tech sheet

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Chart is provided as a reference guide only  
We suggest to use this as a starting point only.

PROPERTY	ASTM	UNIT	TefCote™		
			TC45	TC50	TC60
Trade Name			TC45	TC50	TC60
Chemical Name	-	-	FEP	PTFE	PFA
<b>TYPICAL THICKNESS &amp; PROFILE</b>					
Thickness Range - <b>Mils</b> (Microns)	-	-	<b>0.8-1.2</b> (20 - 30)	<b>0.8-1.2</b> (20 - 30)	<b>1.5 - 5.0</b> (38 - 127)
Coating Cure Profile	-	-	Smooth (non-porous)	Smooth (Slightly Porous)	Smooth (non-porous)
<b>TEMPERATURE</b>					
Max Working Duty Temp °F (°C)	-	-	<b>400</b> (205)	<b>550</b> (290)	<b>500</b> (260)
Max Intermittent Temp °F (°C)	-	-	<b>450</b> (230)	<b>600</b> (315)	<b>550</b> (290)
Melting Point Temp °F (°C)	-	-	<b>500</b> (260)	<b>621</b> (327)	<b>582</b> (305)
<b>PHYSICAL PROPERTIES</b>					
Non-Stick	<b>none</b>		<b>Excellent</b>	<b>Excellent</b>	<b>Excellent</b>
Mold-Release	<b>none</b>		<b>Excellent</b>	<b>Good</b>	<b>Excellent</b>
Chemical Resistance	<b>none</b>		<b>Excellent</b>	<b>Good</b>	<b>Excellent</b>
<b>MECHANICAL PROPERTIES</b>					
Hardness	<b>D2240</b>	<b>Shore D</b>	<b>50</b>	<b>55 - 65</b>	<b>60</b>
Specific Gravity	<b>D792</b>	-	<b>2.15</b>	<b>2.15</b>	<b>2.15</b>
Coefficient of Friction	<b>D1894</b>	<b>Static</b>	<b>.12 - .20</b>	<b>.12 - .15</b>	<b>0.2</b>
		<b>Dynamic</b>	<b>.08 - .30</b>	<b>.05 - .10</b>	-
Water Absorption	<b>D570</b>	<b>%</b>	<b>&lt;.01</b>	<b>&lt;.01</b>	<b>&lt;.03</b>
Contact Angle	-	<b>Water °</b>	<b>95 - 105</b>	<b>104 - 111</b>	<b>104 - 111</b>
Weather Resistance	<b>Florida Exp.</b>	<b>Yrs Unaffected</b>	<b>20</b>	<b>20</b>	<b>10</b>

## Selecting the right TefCote™ coating

Silver Fox offers several choices and understanding a bit about the technologies involved makes the selection process easier. For any particular end use there may be several coatings that will perform well. Utilizing the experienced staff at Silver Fox is a good way to determine options for any given application. However, there is no substitute for testing in the actual end use in making a final selection. Below we have summarized the types of TefCote™ that we offer, but please contact us to discuss the most appropriate coating solution.

**TC45**-based coatings have superb release and are frequently used as mold-release coatings. They melt flow to smooth, non-porous films, and are thus more chemically resistant than TC50 coatings. TC45 coatings have lower heat resistance than TC50/TC60, but they also cure at lower temperatures. TC45 coatings are extremely non-wetting and have a very low coefficient of friction.

**TC50**-based coatings have the lowest coefficient of friction and highest temperature resistance of any of the Teflon® coating systems. TC50 coatings can typically withstand temperatures of 550°F (290°C) on a continuous basis and up to 600°F (315°C) for brief periods. TC50 coatings are very good electrical insulators and are extremely non-wetting. They are inert to almost all chemicals, but are somewhat porous and thus permeable to water vapour and other gases. The substrate must be able to withstand a cure temperature of 700°F (371°C) to consider this coating.

**TC60**-based coatings combine the high temperature resistance of TC50 coatings with the ability to achieve non-porous, chemical-resistant films like TC45. TC60 thickness can be built over 5 mils and are quite tough and abrasion resistant. Release and coefficient of friction properties are very good.