

# InnerArmor Erosion Wear Control Coating

Duralar's InnerArmor brand of Erosion Wear Control coatings provide additional thickness and are specially designed to maximize resistance to high-velocity impact and minimize the effects of erosion. These coatings protect against wear in environments in which there is a high-velocity flow of sand or other particles such as in down-hole tools.

Application environments: Per ASTM G65

<b>Thickness - <math>\mu\text{m}</math></b>	50 - 80
<b>Hardness - GPa</b> Comparison Hardnesses - GPa	20 (adjustable to the application) Stainless 304: Typ <1,      Stainless 17-4: Typ <5, Inconel 718: Typ <3,      Chrome on Steel: Typ <10
<b>Wear Rate - <math>\text{mm}^3/\text{nm}</math></b> Comparison Wear Rates - $\text{mm}^3/\text{nm}$	Typical 5.1E-07 (dry) Stainless 304: 1.00E-03,      Stainless 17-4: 4.00E-03, Inconel 718: 6.00E-04,      Chrome on Steel: 3.00E-04
<b>Coefficient of Friction</b>	<0.1 (dry)
<b>Deposition Method</b>	PECVD
<b>Deposition Temperature</b>	120-200°C (substrate dependent)
<b>Deposition System</b>	Duralar CS-10
<b>Applicable Substrates</b>	Carbon Steel, Stainless Steel, Al, Inconel, Ti Alloys, Ni/Ni Alloys, SiC
<b>Deposition Rate</b>	Typical >0.4 $\mu\text{m}$ / minute