

IHC'S DLC

Characterized by its extreme hardness, high lubricity, high wear-resistance, and high corrosion resistance, Industrial Hard Carbon thin film is applied to parts by a proprietary plasma-assisted chemical vapor deposition process.

IHC films are created from layers of nano-crystalline diamond and nano-crystalline silicon carbide in an amorphous matrix of both elements. It is the unique combination of these elements that give Industrial Hard Carbon its wide range of properties and extremes in those properties, and its qualities can only be surpassed by pure diamond.

IHC's Diamond-Like Carbon Coating has unlimited applications, but some its common uses are in the following industries: firearms, motorsports, oil and gas, industrial, chemical, printing and packaging, cutting tools, electronics, and chemicals.



- ^ CONFORMAL TO SUBSTRATES
- ^ CORROSION RESISTANT
- ^ HIGH LUBRICITY

50%

Or greater friction reduction with no lubrication

3,800

Extreme hardness at 3,800 Vickers

INTERESTING FACTS

- ✓ Minimal thickness at 2 to 4 microns.
- ✓ High wear rate with one millionth of an inch wear rate per one million cycles; validated on 30 million cycles.
- ✓ It can withstand less than 46,000 psi tensile and compressive stresses, and compressive strain of 0.17 percent.
- ✓ It's thermal conductivity is less than 10 W/cm²K.

Industrial Hard Carbon is a diamond-like thin film coating that offers flexibility in many different applications, allowing it to succeed where other thin films fail.

IHC is commonly used in applications where high wear-resistance, high lubricity and high hardness are important, and the thin film can handle extreme conditions such as altitudes, pressures and temperatures.



GO GREEN

IHC's DLC is environmentally friendly.