

IPC 3033X is a dual coating system designed specifically to enhance coverage of any imperfections (porosity) of steel, specifically cast valves that cannot be fully covered by the high phosphorous ENC deposit due to the nature of the substrate.

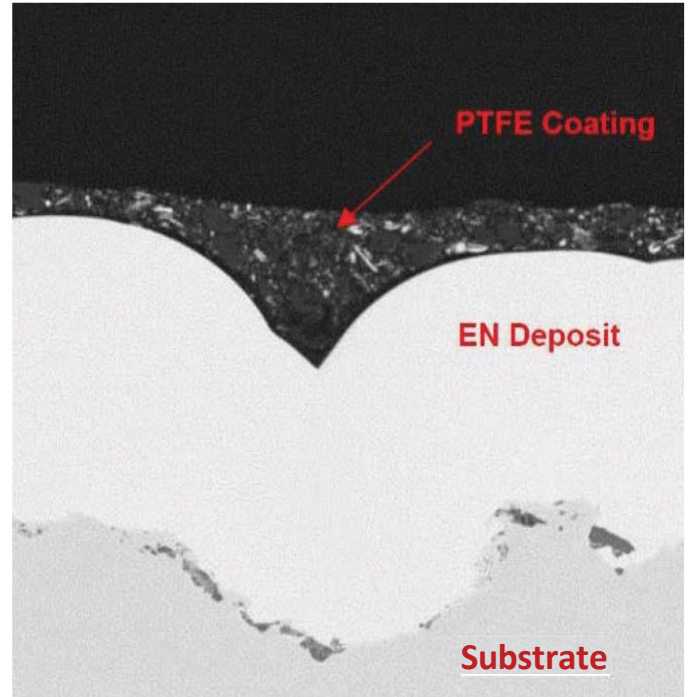
IPC Series 3033x is a union of IPC Series 3000 ENC as the primary corrosion barrier of the substrate and is enhanced with IPC System 33x as a filler in the areas impossible to coat with IPC Series 3000 alone.

In addition, IPC Series 3033x eliminates the need to repair valves with visible pits and inclusions prior to coating and reduces the time required to process valves through our facility.

Physical Properties

Thickness Range	IPC Series 3000	1.2 - 1.5 mils (0.0012" - 0.0020")
	IPC System 33x	0.6 - 1.0 mils (0.0006" - 0.0010")
	Total	1.8 - 2.5 mils (0.0018" - 0.0025")
Max Operating Temperature	IPC Series 3000	250 °C
	IPC System 33x	250 °C
Hardness	IPC Series 3000	450 - 580 HK ₁₀₀
	IPC System 33x	2-4H
Color	IPC Series 3000	Metallic Appearance
	IPC System 33x	Green

Uncoated Inclusion (typical of cast valves) with 33x Filler



Testing Performed

Test Method	Specifications and Compliance	Result
Scanning electron microscopy (SEM analysis)	ASTM B733	IPC 3033x coating successfully covered the inclusion, as well as any exposed steel substrate surface
Phosphorus Content	(10 - 14) %	(11.3 - 11.9) %
Hardness	ASTM B733	450 - 580 HK ₁₀₀
Adhesion (Bend Test)	ASTM B733	Pass
Boiling Water Solution	ASTM B733	Pass
Porosity Testing (Ferroxyl Test)	ASTM B733	Pass
Immersion @650 °C with 5% Brine Solution for 28 Days	NACE TM0174	Pass
Immersion @ Ambient temperature with 5% Brine Solution for 45 Days	NACE TM0174	Pass

For more information email IPC at sales@ipccoatings.com

