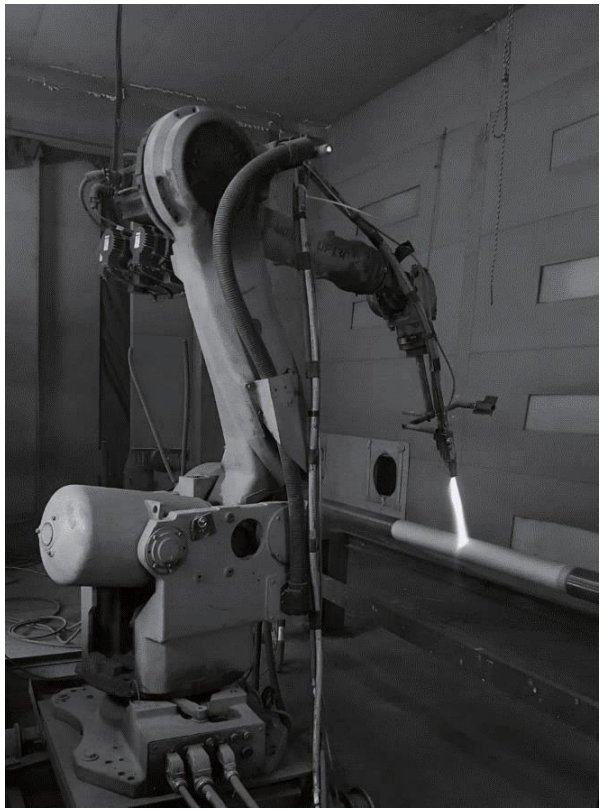
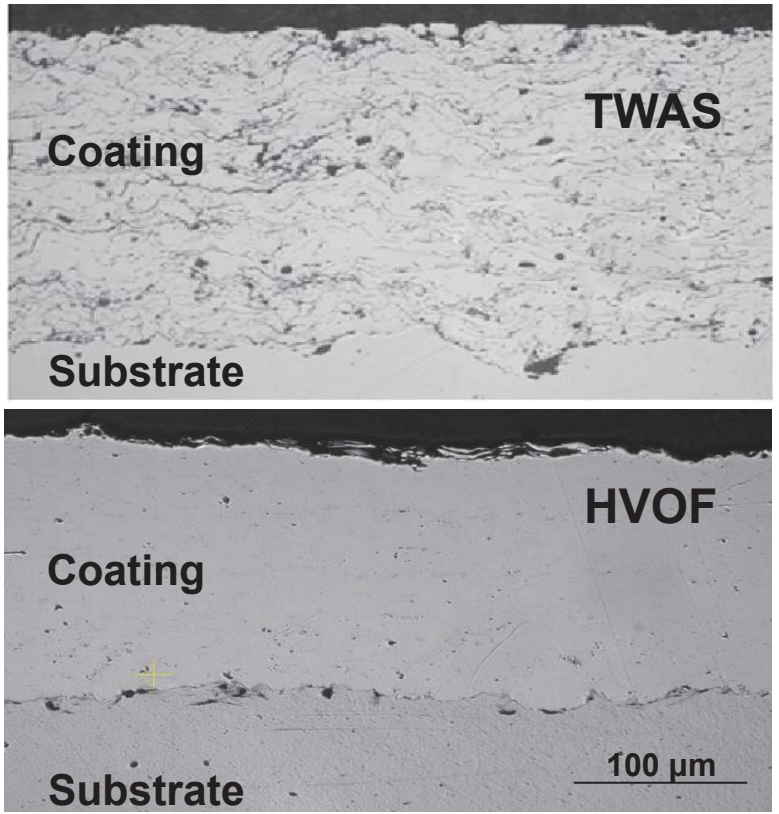
LM360

— High Yield & Fracture Tough —

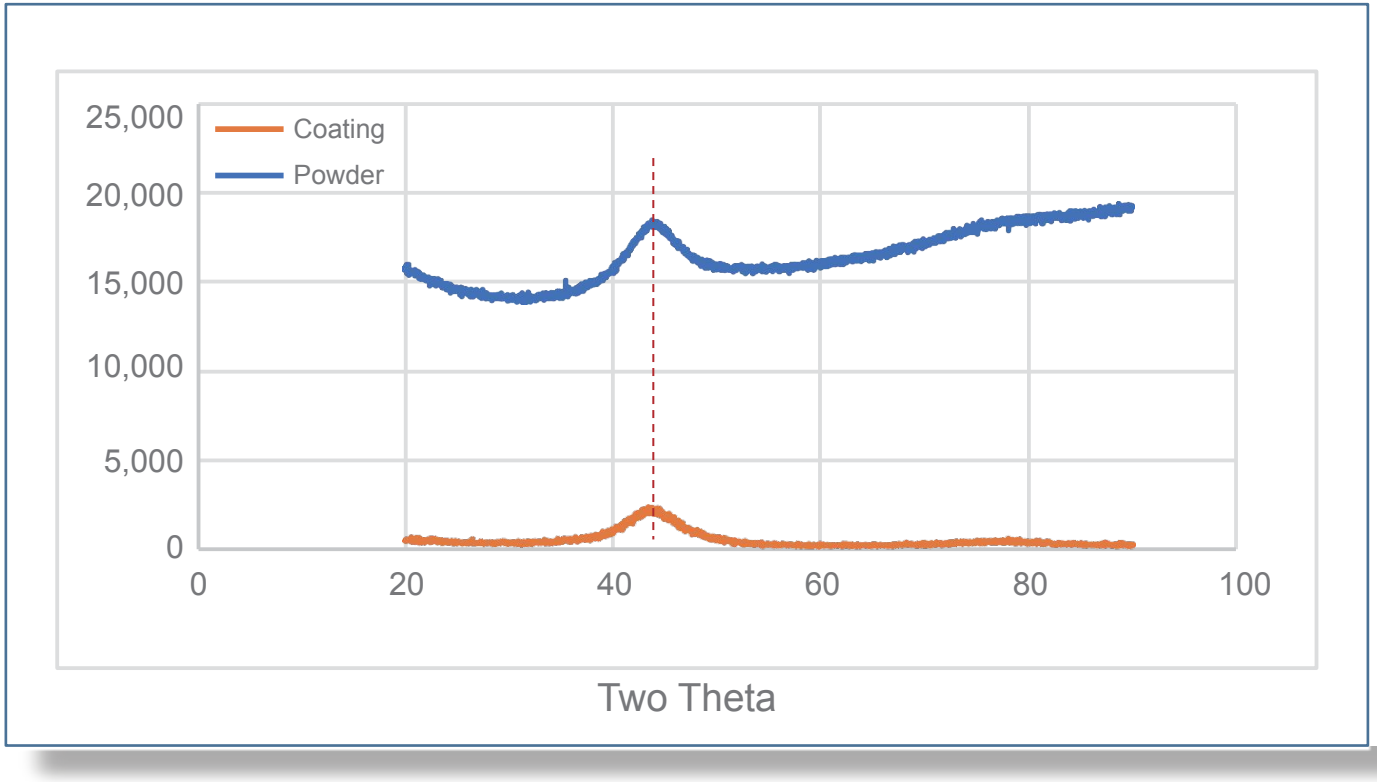
Technology What makes it unique?

Method of Spraying

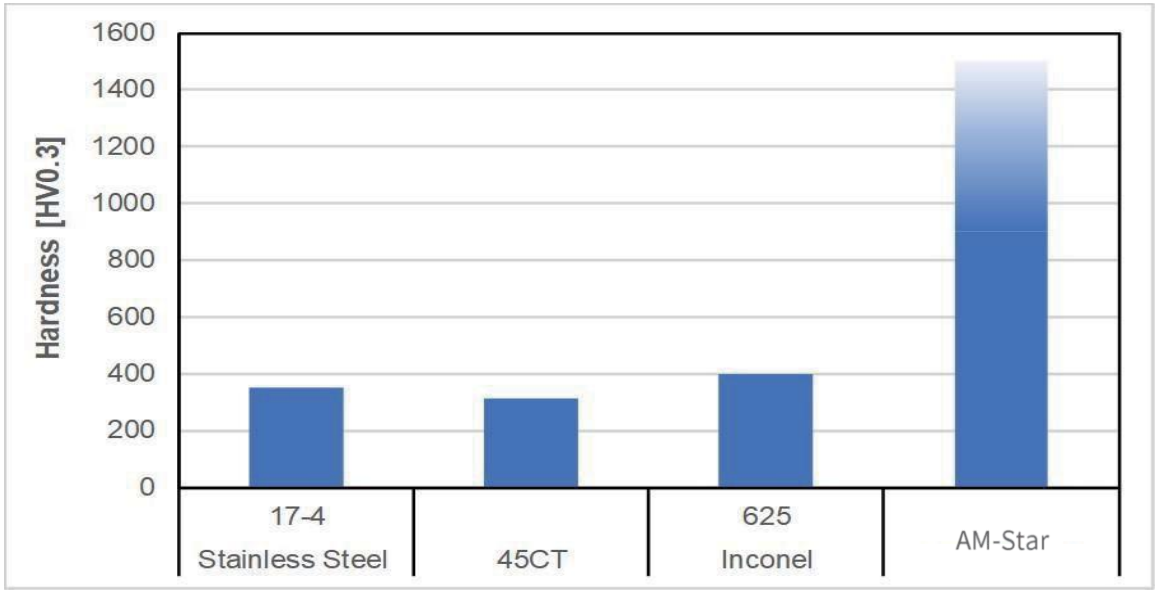


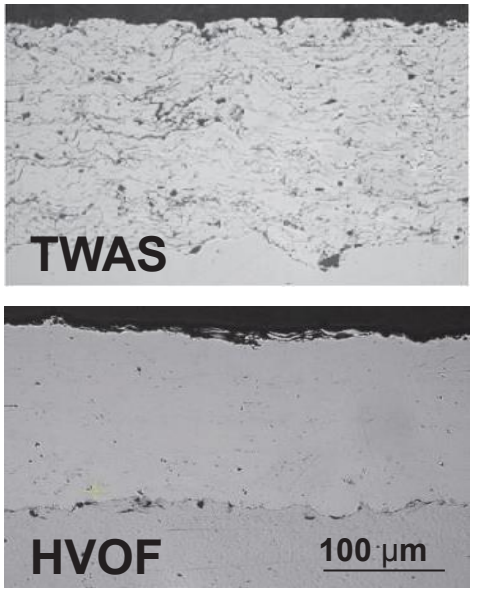


XRD Thermally Sprayed Fe- Based Coatings



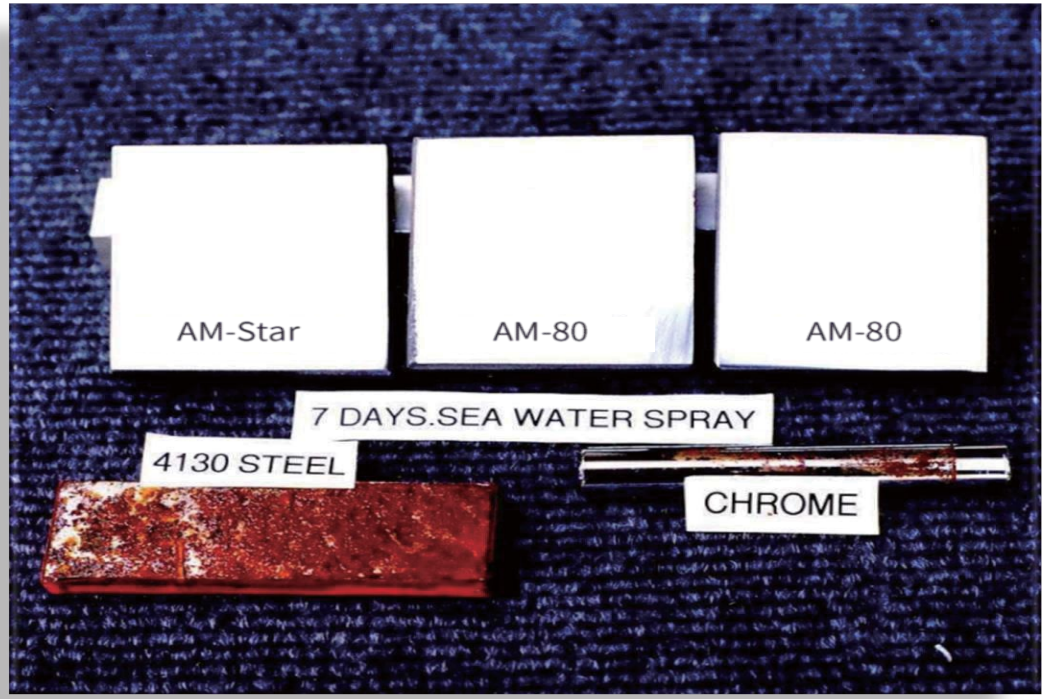
Performance Highlights





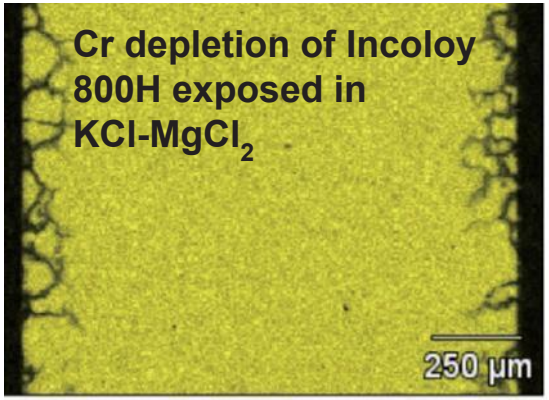
- With hardness from 900 to 1500 HV, LM360 are 3 to 5 times harder than the other materials like steel and Ni-based alloys.
- Products protected by LM360 are lasting 2 to 10 times longer in actual field applications.

Corrosion Resistance



In standard 7 day salt water spray tests, iron-based LM360 experience no rusting while SS4130 and chrome-plated rods show significant rust.

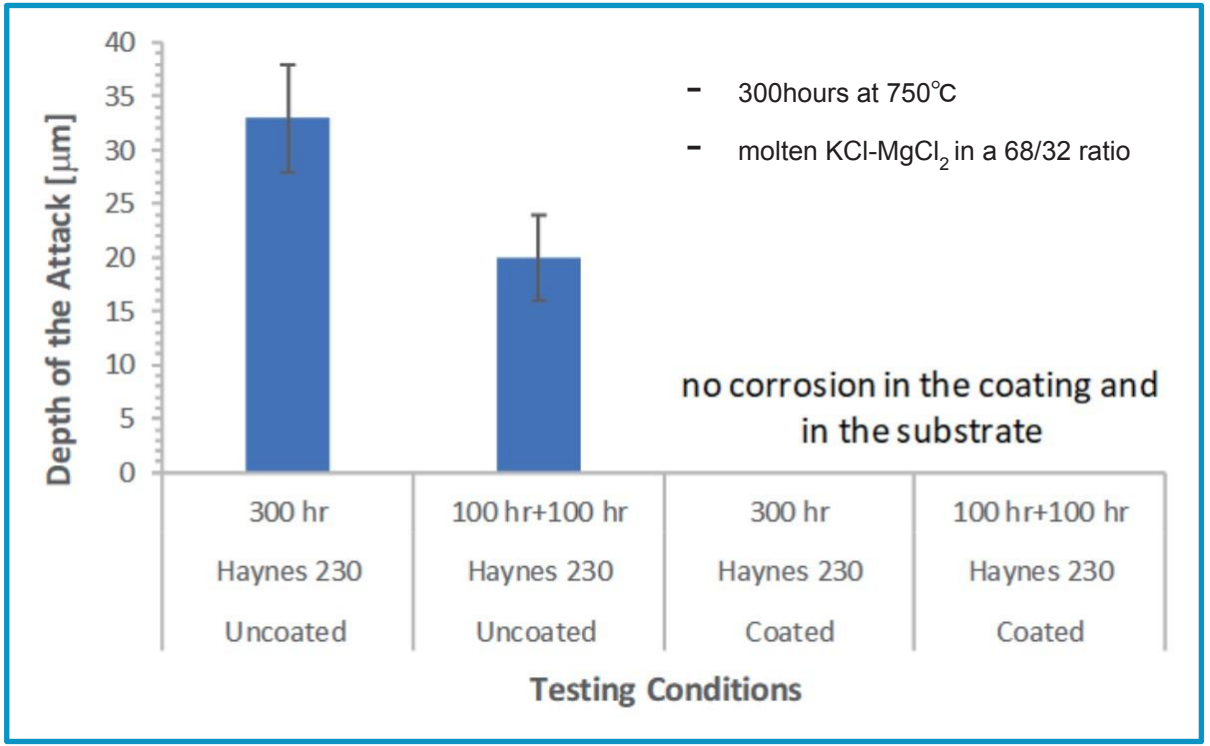
Materials with High Corrosion Resistance against Liquid Chloride Systems



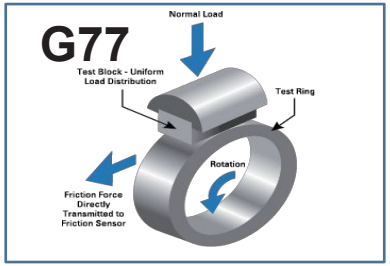
→ 316 stainless steel exhibited the worst grain boundary attack with chromium depletion to 300µm depth after 100hrs exposure

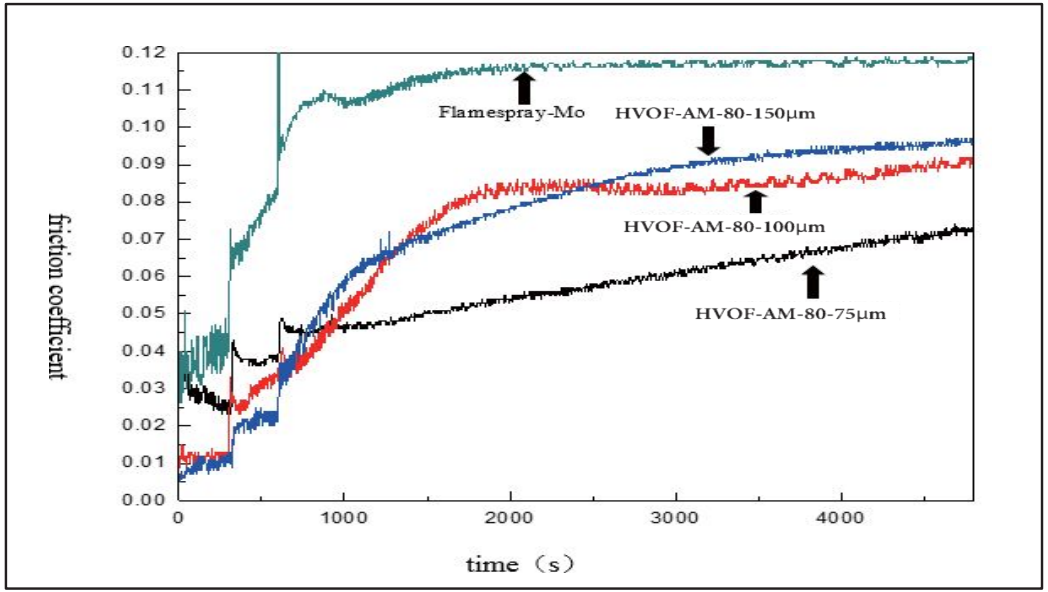
→ SunShot program has a target of a corrosion rate of less than 15 µm/yr to ensure a 30 years lifetime of the next generation of CSP (Concentrated Solar Power) systems

Depth of CorrosionAttack after Testing II



ASTM G77 / Block-on-ring



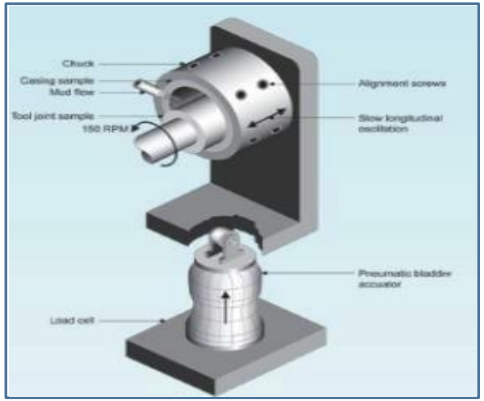


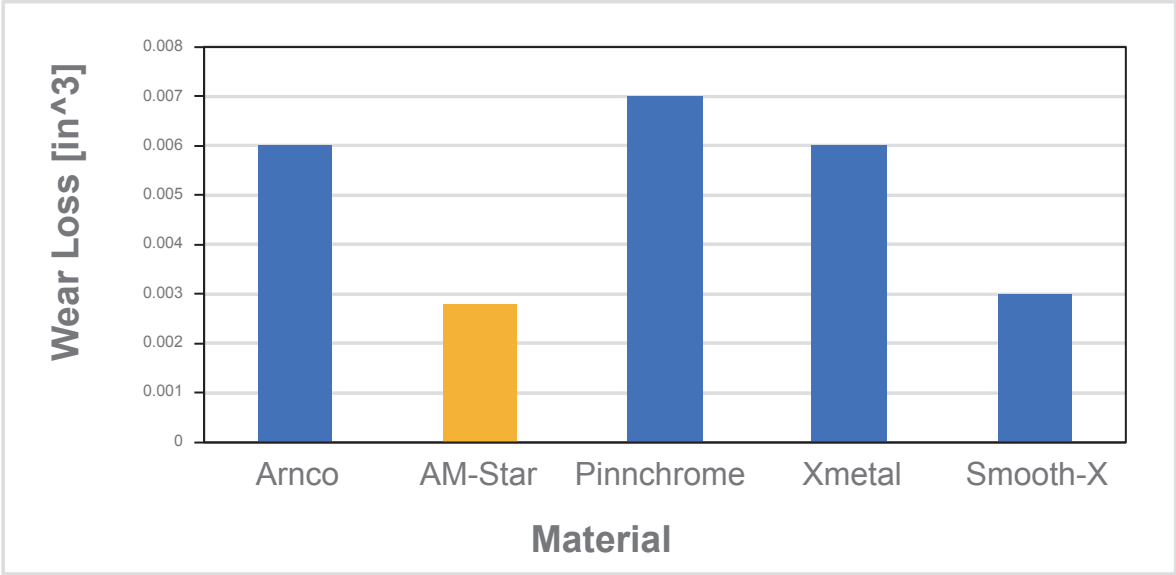
Testing done with L-MM46 hydrodynamic lubricating oil

Parameters of the test are showed as following:
200N, 5min → 500N, 5min → 1000N, 5min → 1200N, 65min

LM360 against 4130 steel

DEA-42 Results / Tool Joint Wear in Casing

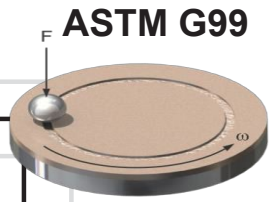




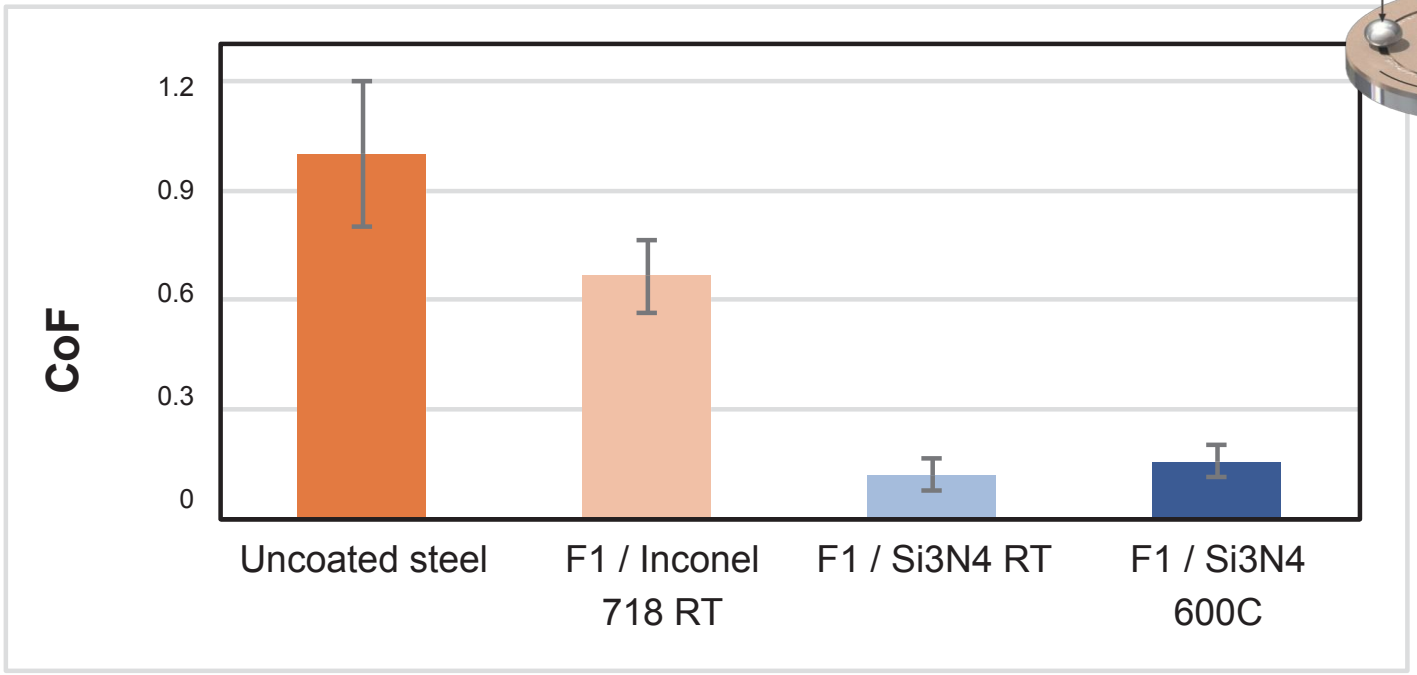
Testing against N80 steel casing

(* Pinnchrome – Chrome carbide hardfacing Arnco – WC-cermets
XMETAL 7000 – WC / Cr2C3 Ni-based hardfacing SMOOTH-X – NOV WC-based cermets)

Tribological Testing 600C



ASTM G99



Coating / Counterpart Material 10N Load, 0.25m/s rotation speed