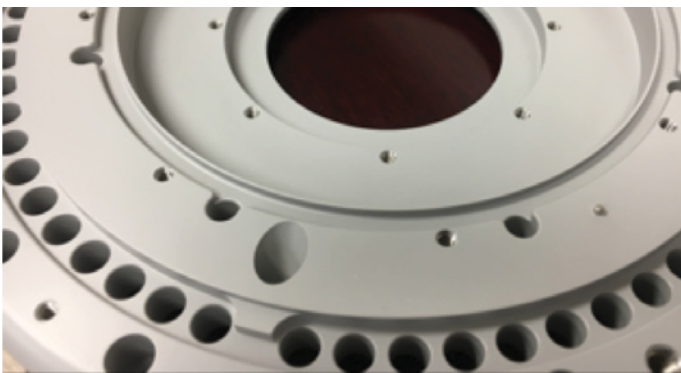


# Celazole® PBI

## Using Celazole® PBI coating as a tie layer for other polymers

Semi-crystalline polymers, such as PPS, PEEK and C-PEKK can be difficult if not impossible to apply as coatings to certain geometric surfaces. The high melt temperatures of these polymers create stresses during processing due to a mismatch in the coefficient of thermal expansion (CLTE) between the polymer and metal. The high shrinkage caused by crystallization coupled with low elongation causes cracking, pin holing, poor adhesion and delamination.



CELAZOLE® PBI COATING

A solution to these problems has been discovered by Southwest Impreglon, Inc. (SWI) of Houston, Texas, a custom coatings applicator of high performance polymer coatings such as PAI, PEEK, PEKK, PTFE, PFEA, ECTFE, PVDF, and most recently Celazole® PBI brand Polybenzimidazole. They've discovered that in using PBI as a tie layer, they've solved CLTE mismatches between metal substrates and semi-crystalline polymers. The coating is improved in all geometries; resisting cracking due to bending coated metal structures compared to monolayer-coated parts.

Part geometries once thought as being impossible to coat can now be coated. From fan blades to valve body interiors, many geometries can work.