

Application Bulletin

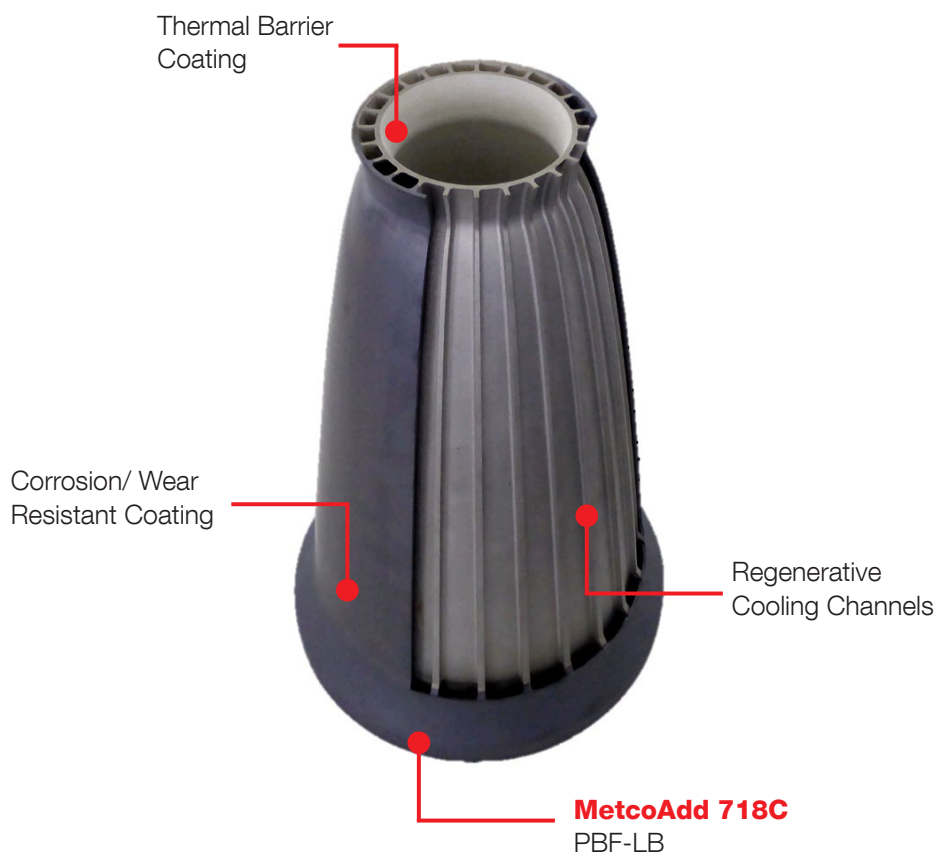
Additive Manufacturing

Rocket Nozzle — MetcoAdd 718C

Rocket nozzles require specific materials with significant strength at elevated temperatures while showing good thermal conductivity. Weight reduction is necessary to increase the payload. Complex conventional manufacturing methods like joining by brazing present performance barriers should be avoided.

The Oerlikon Metco Solution

The process of Laser Powder Bed Fusion (PBF-LB), using MetcoAdd 718C, allows the creation of regenerative cooling channels. Oerlikon Metco's thermal barrier coating is applied to the inner surface. Oerlikon Balzers PVD corrosion and wear resistant coating is then applied to the outer surface. The combination of these production steps and materials leads to a lightweight, high performance component with the added benefit of increased speed of production or reduced lead time.



Recommended Oerlikon Metco Products

MetcoAdd 718C Outstanding strength at elevated temperatures while showing good thermal conductivity

More Information

DSM-0296