

The problem

Traditional aerospace gaskets and seals require extensive manual labor and rework.



The solution

PPG ARE™ additive manufacturing produces fully-cured gaskets and seals that save customers time and money.

Aerospace parts on-demand

Our process

- Collaborate to identify time saving PPG ARE™ gasket opportunities
- Generate CAD design via reverse engineering
- Prototype 3D printed gasket, iterate as necessary
- Produce 3D printed gasket on-demand for quick installation



The value of PPG ARE™

PPG ARE™ can reduce costs, improve productivity, and enable new innovations.



Improved time to market

With access to fast and efficient gasket production, you can get to market faster and stay ahead of the competition.



Improved productivity

3D printed gaskets are fully cured and ready for quick installation – maximizing throughput and cost savings.



High quality parts & materials

3D printed gaskets are uniform, consistent and eliminate rework – all produced with qualified PPG materials.



Customized solutions

With additive manufacturing, you can receive gaskets catered to fit your specific needs.



Increased innovation

By working with PPG, you'll have access to the latest advancements in material science and AM solutions.



Environmental footprint

By reducing waste and improving efficiency, you can improve your own environmental footprint.

For the aerospace application support center nearest you, please visit our website at www.ppgaerospace.com

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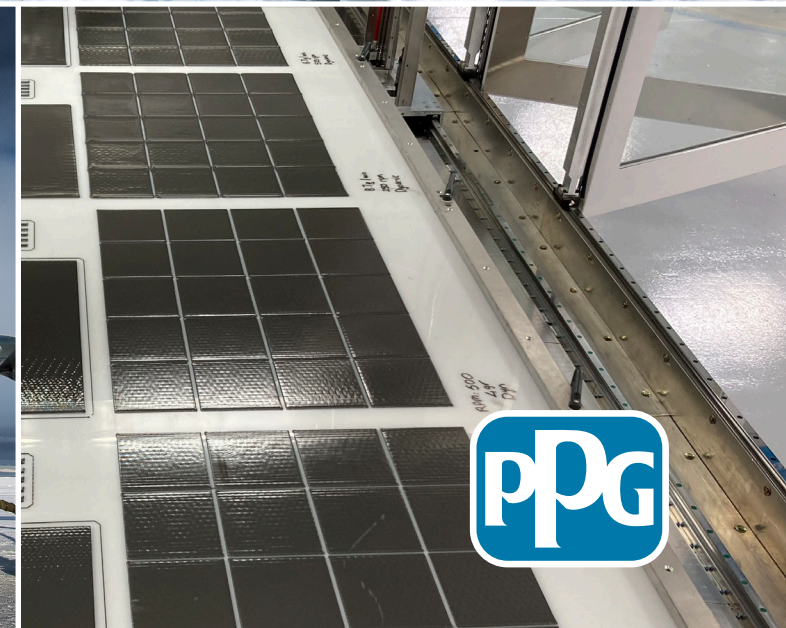
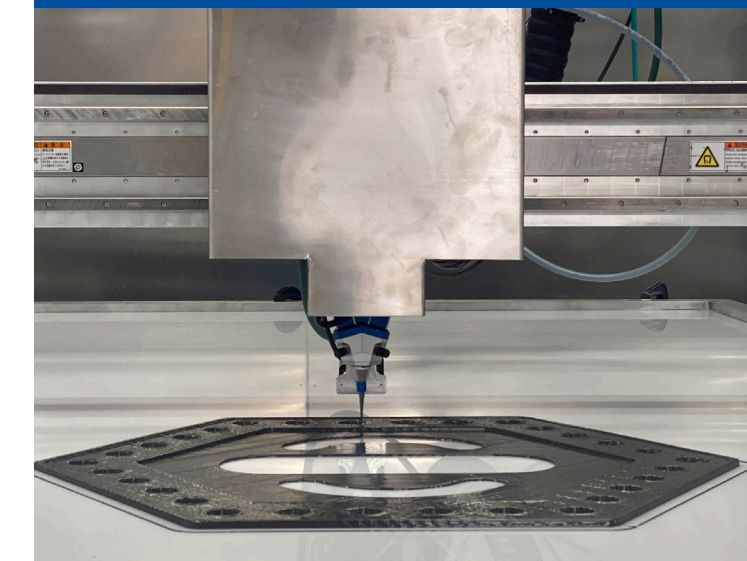
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PPG ARE™

Additive Manufacturing Technology



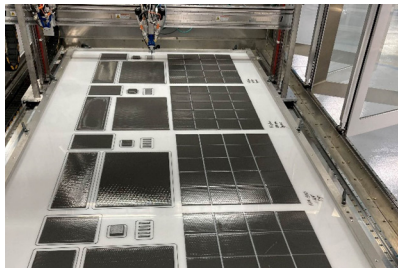
Market validation

C130J Super Hercules Ramp Seals



The benefits of additive manufacturing

Manual process vs. automated production



Automated production yielded a greater than 30% customer cost savings and 10 times faster installation.

Stop smearing, start sticking!

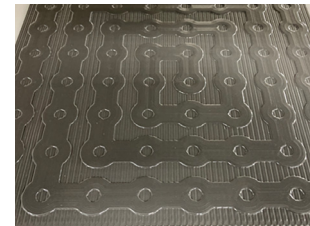


“These 3D printed components are a game-changer for the C-130J Super Hercules. PPG ARE™ technology is an outstanding example of how manufacturing innovation and evolution combine to deliver affordable, customized and durable components for our operators”.

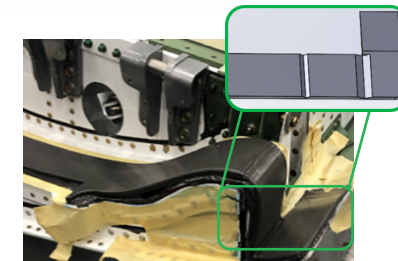
Rod McLean, VP and General Manger of Lockheed Martin's Air Mobility & Maritime Missions



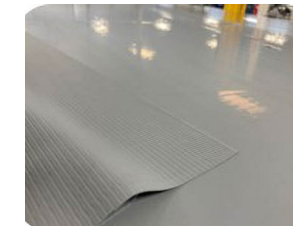
Complex lattice structures (4" x 4" x 4" vertical structure)



Customized sealant surfaces

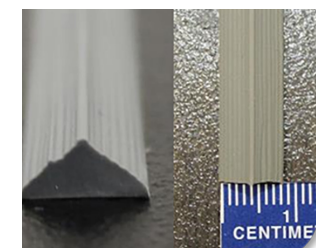


Engineered folding areas

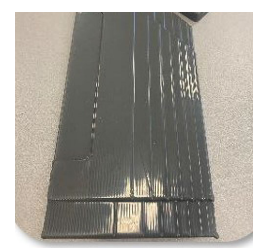


The printing capabilities (0.5 mm minimum thickness)

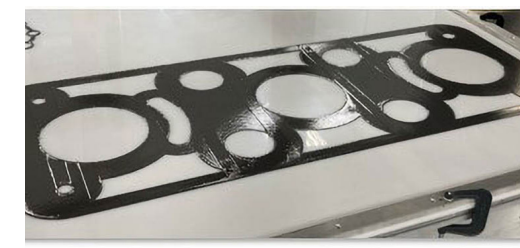
Applications we are targeting



Gap filets



Smoothing pads



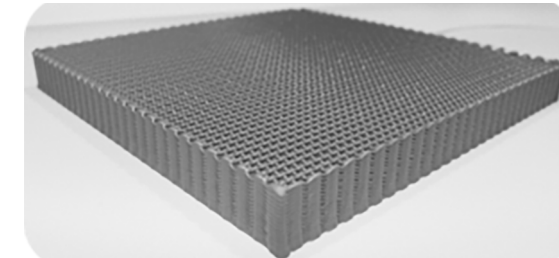
Large scale fit-in-place gaskets



Dust gasket

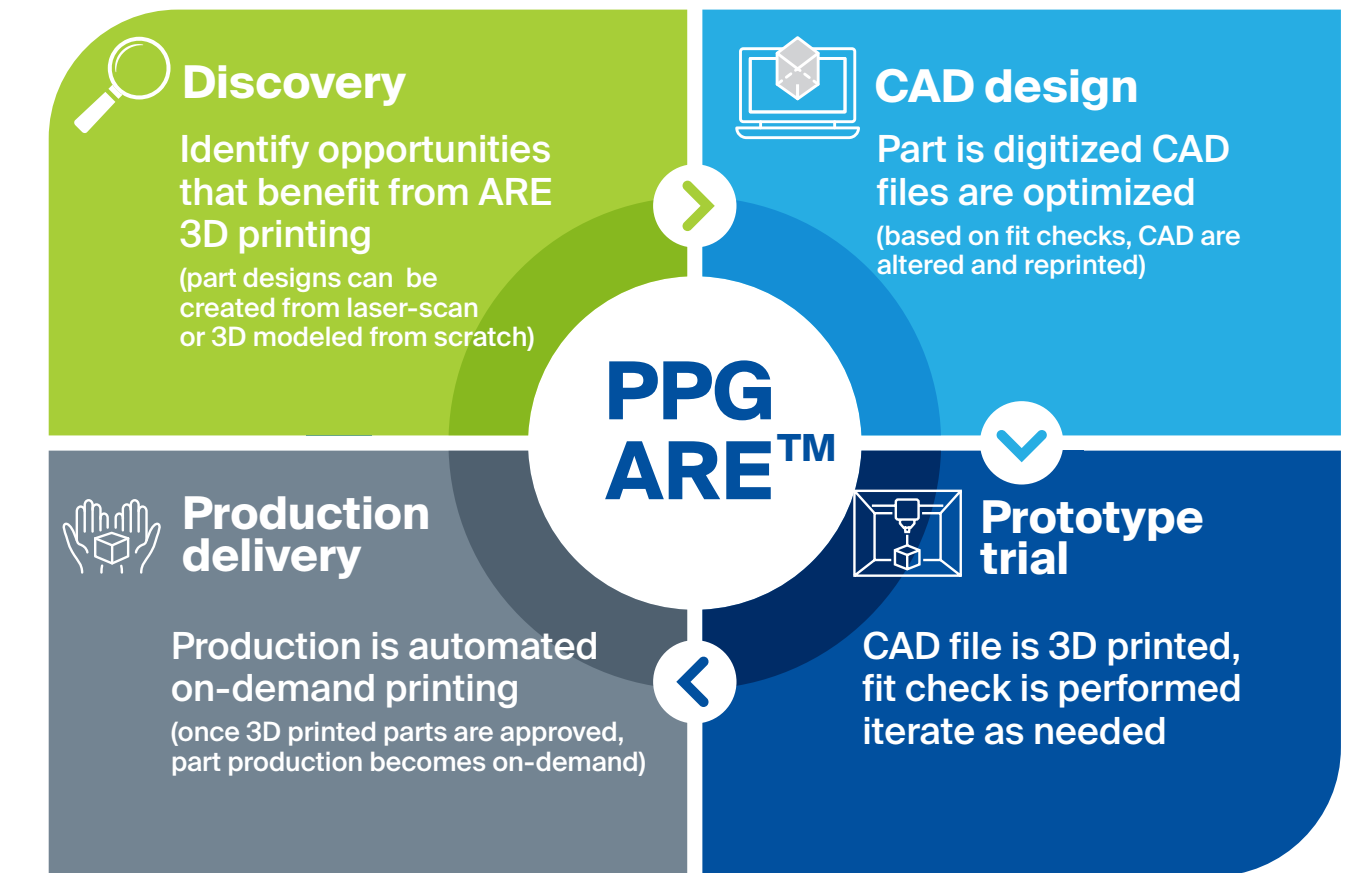


Complex seals and O-rings



Customized sealing mats

How our process works



PPG commercial elastomeric materials

Rapid-cure, high performance, fuel-resistant sealant (PR-2001 tested to AMS 3277). Maintains excellent elastomeric properties after prolonged exposure to organic fuels. Excellent resistance to water, alcohols, petroleum/synthetic lubricating oils, and petroleum-based hydraulic fluids.

Service temperatures ranging from -65 °F to 302 °F, with intermittent exposure to 360 °F.

Additional sealants 3D printed with PPG ARE™:

PR-1425, PR-1429, PR-1440 (AMS-S-8802), PR-1750 (AMS 3276), PR-1776MB (AMS 3281 Ty I), PR-1829, PR-2001 & PR-2001 LW (AMS 3277), P/S 870 (Mil-PRF-81733), P/S 872.



PPG partners with customers to create mutual value