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# CONTROLLED POLYMER ABLATION (CPA) TECHNOLOGY

High-Strength  
Fibre-reinforced  
bonds, without grit



Breakthrough high volume and fully automatable treatment technology delivering >35 MPa composite bonds

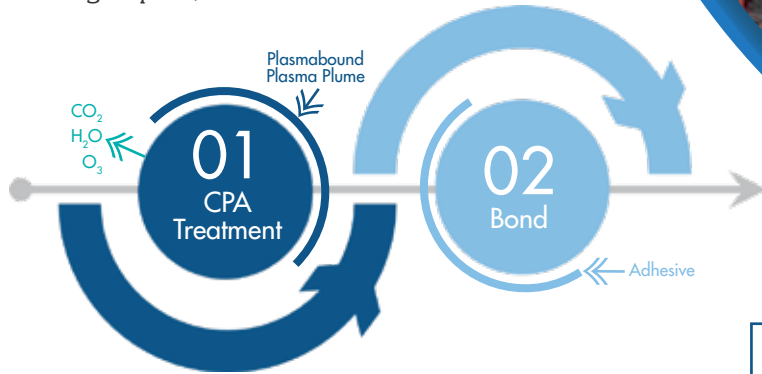
- 1 Step process.
- Retains 100% fibre integrity, structural efficiency.
- Permits Smaller Multi-Material Light- weight Sub-assemblies.
- Zero Consumables, or Waste.
- No Heat Affected Zones, Melt-back, Delamination.
- Disruptive, Step-change for Light-weighting Industry.
- Significantly lower CAPEX/OPEX costs than alternatives.
- Thermoset/Thermoplastic Agnostic.
- Minimizes rejects via repeatable in-process control system.
- Permits Smaller Multi-Material Light- weight Sub-assemblies.

\* Reach compliant

# PROCESS

## Process Benefits

- > 1-step, in-line process.
- > No pre/post clean.
- > No wipes, no grit.
- > Maximises Cohesive Failure, minimises rejects.
- > Smaller, Multi-material Sub-Assemblies.
- > High Speed/Volume.



## MATERIALS

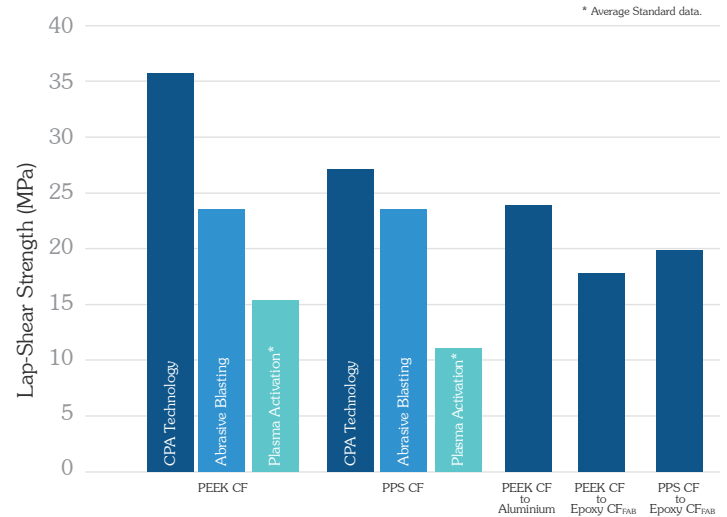
Polymers	Fibres	Format
PEEK	Carbon	Woven
Epoxy	Glass	Unidirectional
PAEK	Aramid	Discontinuous (long)
PEI	Basalt	Discontinuous (short)



## APPLICATIONS

- 1 Fuselage
  - 2 Blades
  - 3 Repair
  - 4 Nacelle
  - 5 Wing boxes
  - 6 Structural elements
  - 7 Seats
- and more...

## RESULTS



- > Structural Adhesive Bonds, 35Mpa/5000Psi.
- > Retains 100% Fibre integrity, structural efficiency.
- > No Heat Affected Zones, Melt-back, Delamination.
- > Interlaminar failure observed in most results shown.

All results conducted via independent 3rd parties.

