

# HYCOMP™ COMPOSITE MATERIALS & PROPERTIES

Which precision solution is right for you?



## H310® PI resin

Reinforced with carbon fibers  
Highest strength at high temperature, *Aerospace Grade*

### General

Specific Gravity: 1.54

Continuous use temperature:  
+315°C (+600°F)

### Mechanical

Tensile Strength



314 MPa (45,540 psi)

Compressive Strength



628 MPa (91,080 psi)

Flexural Strength



546 MPa (79,190 psi)

Thermal expansion -



$27 \times 10^{-6}$  m/m/°C

Thermal expansion - Parallel



$4 \times 10^{-6}$  m/m/°C

### Available as

- Basic Shapes
- ✓ Finished Parts

### Manufacturing Process

Sheet molding

## H320® PI resin

Reinforced with glass fibers  
High temperature heat shields & electrical insulation applications

### General

Specific Gravity: 1.88

Continuous use temperature:  
+315°C (+600°F)

### Mechanical

Tensile Strength



234 MPa (33,940 psi)

Compressive Strength



331 MPa (48,010 psi)

Flexural Strength



434 MPa (62,945 psi)

Thermal expansion - Perpendicular



$43.2 \times 10^{-6}$  m/m/°C

Thermal expansion - Parallel



$14.4 \times 10^{-6}$  m/m/°C

### Available as

- Basic Shapes
- ✓ Finished Parts

### Manufacturing Process

Sheet molding

## Wearcomp® PI resin

Reinforced with carbon fibers  
Outstanding mechanical strength & wear resistance at high temperature

### General

Specific Gravity: 1.54

Continuous use temperature:  
+315°C (+600°F)

### Mechanical

Tensile Strength



220 MPa (31,910 psi)

Compressive Strength



517 MPa (79,985 psi)

Flexural Strength



345 MPa (50,040 psi)

Thermal expansion - Perpendicular



$27 \times 10^{-6}$  m/m/°C

Thermal expansion - Parallel



$3.6 \times 10^{-6}$  m/m/°C

### Available as

- Basic Shapes
- ✓ Finished Parts

### Manufacturing Process

Sheet molding

## Wearcomp® 200 PI resin

Reinforced with carbon fibers & graphite  
Extreme mechanical strength & wear resistance at high temperature

### General

Specific Gravity: 1.59

Continuous use temperature:  
+315°C (+600°F)

### Mechanical

Tensile Strength



138 MPa (20,015 psi)

Compressive Strength



296 MPa (42,930 psi)

Flexural Strength



209 MPa (30,310 psi)

Thermal expansion - Perpendicular



$27 \times 10^{-6}$  m/m/°C

Thermal expansion - Parallel



$3.6 \times 10^{-6}$  m/m/°C

### Available as

- Basic Shapes
- ✓ Finished Parts

### Manufacturing Process

Sheet molding

