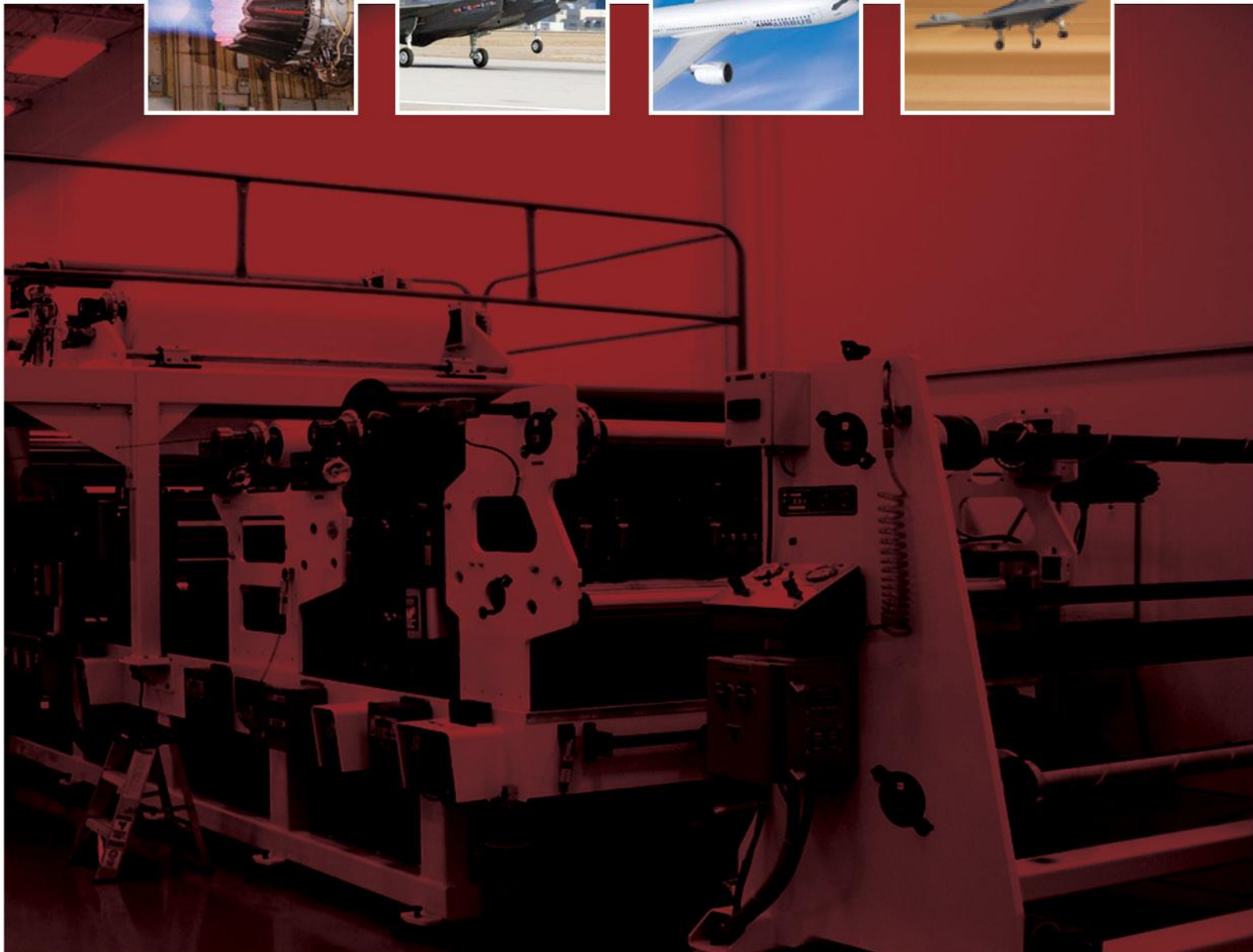


# RM-5003 CYANATE ESTER PREPREG

FOR HIGH PERFORMANCE AEROSPACE APPLICATIONS



## RM-5003 Cyanate Ester Prepreg

### Low Dielectric and Loss, High Performance Prepreg

- 350°F Cure
- Designed for demanding electrical, radome and antennae applications.
- Developed for optimized tack and handle ability.
- Delivers superior performance with service up to 350°F with post cure.
- Available in woven and unidirectional product forms using all fibers including carbon, quartz and glass.
- Nano-enhancements for tailored laminate properties and multi-functional performance available.

#### RM-5003 Cured Resin Properties

|                              |           |
|------------------------------|-----------|
| Cured Resin Density          | 1.18 g/cc |
| Resin Flex Strength          | 20 ksi    |
| Resin Flex Modulus           | 530 ksi   |
| Resin Flex Strain to Failure | 4.5%      |

#### RM-5003/4581 Electrical Properties

|                              |       |
|------------------------------|-------|
| Dielectric Constant @ 10 GHz | 3.1   |
| Dielectric Loss @ 10 GHz     | 0.003 |

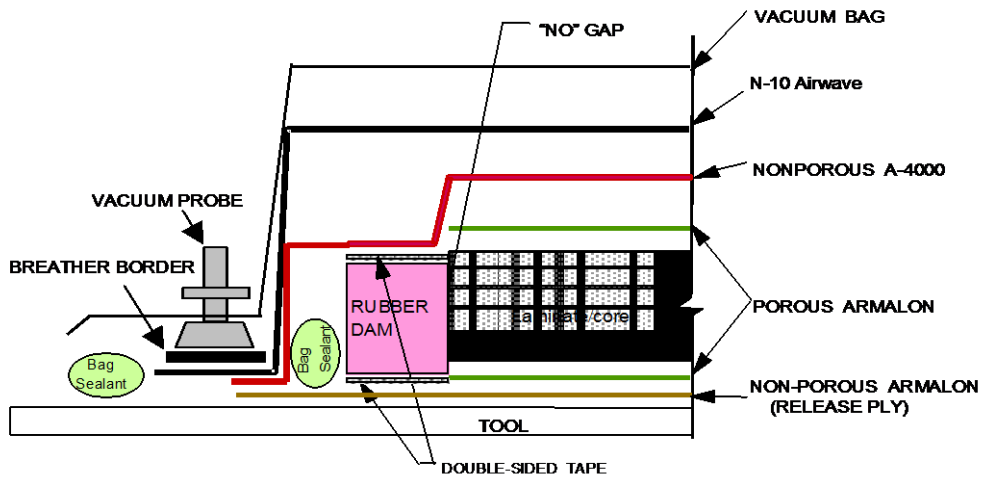
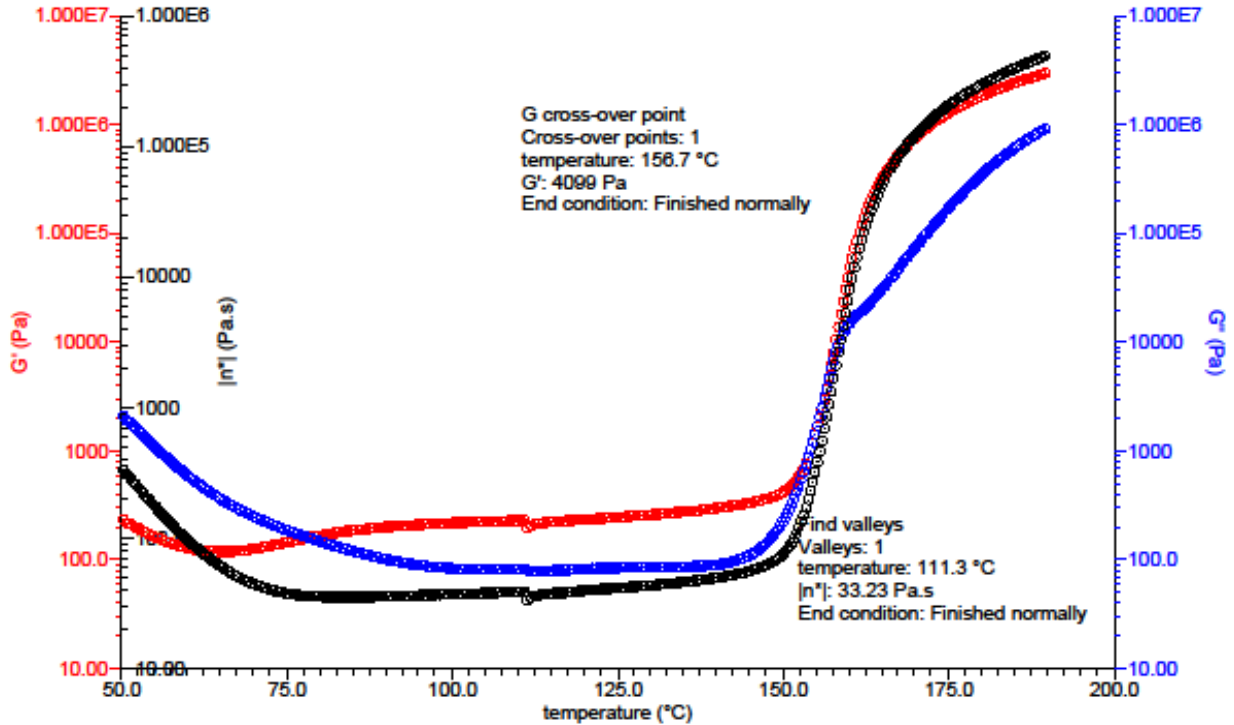
**“Seller makes no warranty regarding the accuracy of this information. Buyers should make their own evaluation to determine suitability of any product for their own intended purposes.”**

| <b>RM-5003/4581 Astroquartz Laminate Properties*</b> |                   |
|--|-------------------|
| <b>Property &amp; Test Method</b>                    | <b>Value</b>      |
| Tensile Strength (ksi)<br>ASTM D 3039                | 127               |
| Tensile Modulus (Msi)<br>ASTM D 3039                 | 4.1               |
| Compression Strength (ksi)<br>ASTM D 695             | 100               |
| Compression Modulus (Msi)<br>ASTM D 695              | 4.1               |
| Short Beam Shear Strength (ksi)<br>ASTM D 2344       | 12                |
| Flexural Strength (ksi)<br>ASTM D 6272               | 144               |
| Flexural Modulus (Msi)<br>ASTM D 6272                | 3.9               |
| Test Laminates $V_f$ Average                         | 55%               |
| Dry Tg , Storage Modulus                             | 375 ° F / 190 ° C |
| Wet Tg, Storage Modulus, Saturated                   | 320 ° F / 166 ° C |

\*All properties are tested at RT Dry in the 0° direction except as stated.

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**RM-5003 Viscosity Profile at 2°C/ minute to gel**



**Recommended Autoclave Cure Cycle:** At Full Vacuum and 85-psi, Ramp at 1-5°F Per Minute to 350°F and Hold for 90-minutes.



**Renegade Materials Corporation is a global leader in manufacturing composite materials for aerospace applications. We deliver light-weight, highly-engineered prepregs, adhesives and hybrid composite systems to enable maximum fuel efficiency in commercial and military aircraft structures.**

**For pricing or additional information on Renegade products, please call us at 937-350-5274 or visit our website at [www.renegadematerials.com](http://www.renegadematerials.com)**



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