

# SHEERGARD® K6

SHEERGARD COMPOSITE SOLUTIONS

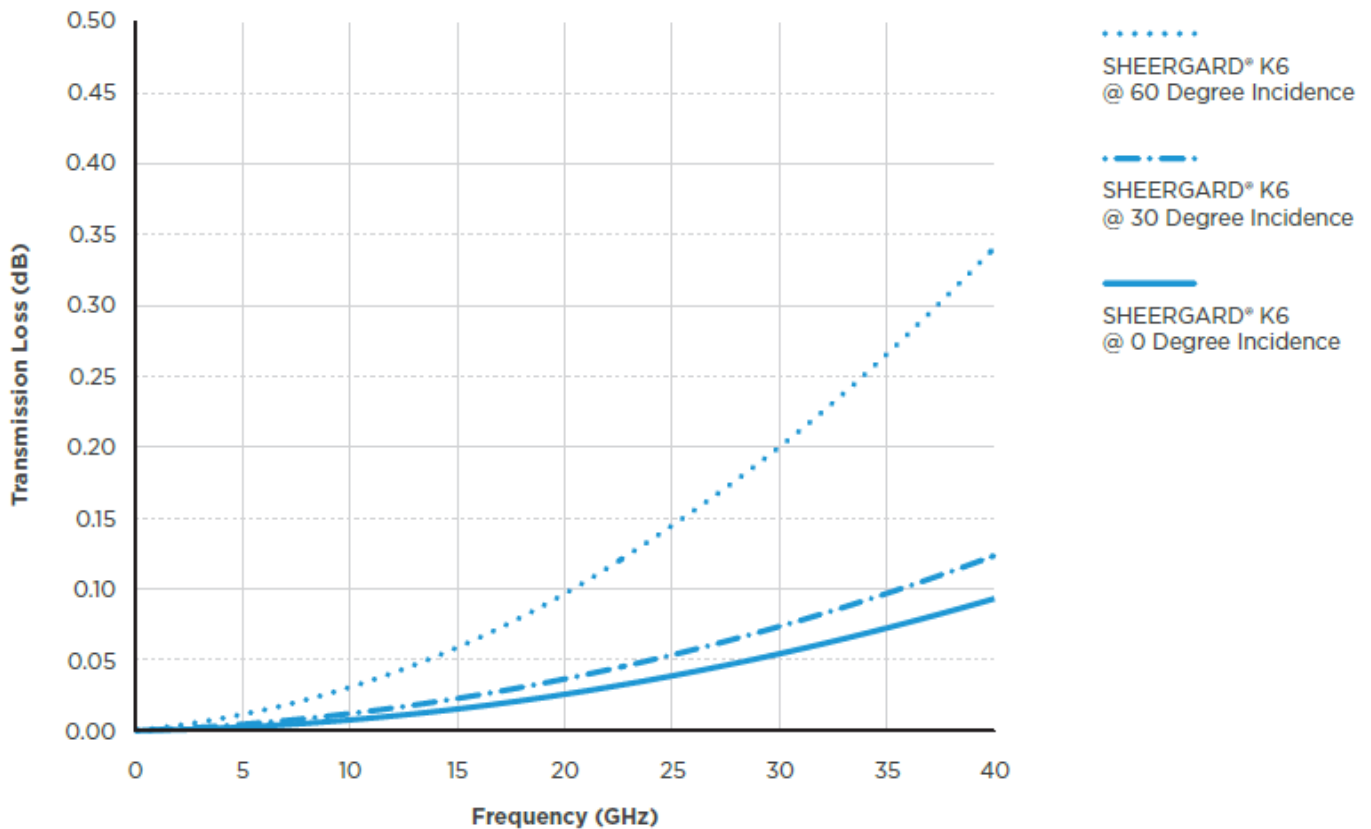
## RF TRANSMISSIVE COMPOSITES

**SHEERGARD K6** is a microwave transmissive composite designed specifically for use in broadband RF applications, including high frequency 5G mm wave antennas. The composite is constructed from high strength aramid fibers (Kevlar®) in a polytetrafluoroethylene (PTFE) matrix coating.

The “K” group incorporates aramid fibers in a flat, plain weave for enhanced flexural characteristics and high tear strength used specifically for planar radomes and antenna covers. The PTFE coating provides a permanent hydrophobic surface (field proven for over 30 years) for RF performance during rain or condensation conditions.



## TRANSMISSION LOSS AT INCIDENCE ANGLES



# SHEERGARD® K6

## SPECIFICATIONS

Property	Imperial	SI	Test Method
Width (nominal)	82 in	2.08 m	-
Coated Fabric Weight (nominal)	10 oz/yd <sup>2</sup>	340 g/m <sup>2</sup>	ASTM D751
Thickness (nominal)	0.009 in	0.23 mm	ASTM D751
Tensile Strength Warp (minimum avg.) Fill (minimum avg.)	230 lb/in 230 lb/in	2000 N/5cm 2000 N/5cm	ASTM D4851
Tear Strength (lbs) Warp (min. avg.) Fill (min. avg.)	19 lb 16 lb	85 N 71 N	ASTM D4851
Coating Adhesion (min. avg.)	5.0 lb	45 N/5cm	ASTM D4851
Maximum Water Absorption	2.0%		24 hr Total Immersion
Dielectric Constant (nominal)	2.41		ASTM D2520
Loss Tangent (nominal)	0.008		ASTM D2520
Incombustibility (seconds)	0 to flameout		NFPA 701
Hydrophobic Contact Angle (°)	119° nominal		ASTM C813
Temperature Range (°F)	-100 to +300 °F	-73 to 149 °C	-

The values presented are min/max specification values. Nominal values can be provided upon request. Values listed are for virgin roll goods only. Appropriate industry safety factors need to be used to account for the in-service effects of handling, weathering, etc.

## CONTACT

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**IMPORTANT:** Contact your representative for more information. It is the user's responsibility to ensure the suitability and safety of SHEERGARD Composite Solutions products for all intended uses and that the materials to be used comply with all applicable regulatory requirements. SHEERGARD assumes no responsibility for any product failures that occur due to misuse of the materials it provides arising out of the design, fabrication, or application of the products into which the materials are incorporated by purchaser and/or user. SHEERGARD RF transmissive fabrics are not sold as roll goods.

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