

INNOVATION AND TECHNICAL CAPABILITIES OWENS CORNING INDIA

OUR CURIOSITY FUELS YOUR POSSIBILITY

Strong, lightweight, and versatile. Owens Corning® composite solutions have transformed industries. From construction to transportation to energy – there's no telling where our next innovation will reach. We aren't just a world leader in glass science – we innovate productivity, performance, durability, and design flexibility. Our influential innovations are a powerful combination of understanding emerging needs and responsibly creating next-generation solutions.



WELCOME TO THE PINKTANK™

A one-stop shop for the development of customized solutions to optimize the end product and bring future material conversion opportunities to life. The PINKTANK™ team determines the right process using the right product. We test and quantify the outcome of the formulation to optimize productivity and help save money.

THE BENEFITS OF PINKTANK™

Product Knowledge + Design + Testing + Global connection – more than 80+ years of data coupled with global experience to increase material and application innovation combined with:

- Developing Material Data Cards for SMC and BMC applications
- Diverse expertise in Application Development.
- Powerful modeling tools.
- Breadth of industry experience.
- Mechanical Characterization Tools – ASTM/ISO tests.
- Thorough understanding of industry standards, design requirements, and processes.
- Collaborative. Innovative. Efficient.



THE POWER OF ADVANCED MODELING

- CAD & meshing tools
- Micro/macro performance modeling
- Process modeling
- Cost modeling/value propositions
- Microscopic analysis for troubleshooting
- Testing as per ASTM, ISO and custom methods

THE POWER OF MATERIAL DATA CARD

- Helps derive:
 - Curing kinetics
 - Heat capacity
 - Reactive viscosity
 - Thermal conductivity
- Reduces rework and rejections of parts
- Improves mechanical performance
- Quicker go-to-market, lesser iterations for development



MODEL

Produce using composite material

TEST

performance characteristics

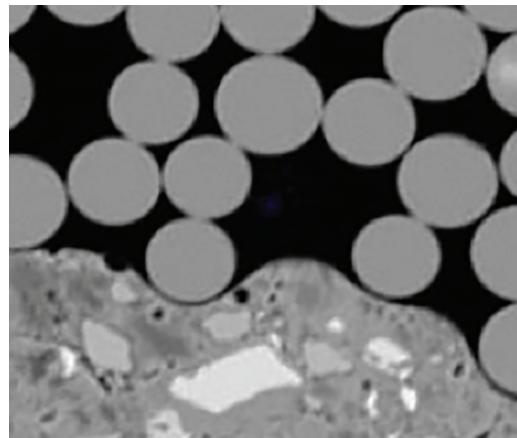
SHOW

cost/performance of the end part

TECHNICAL CAPABILITIES

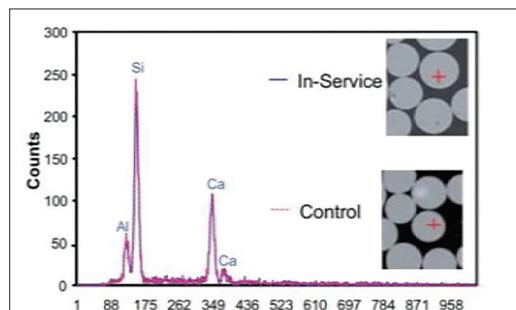
Scanning Electron Microscope

A scanning electron microscope (SEM) is a type of electron microscope that produces images of a sample by scanning it with a focused beam of electrons. The morphological characterization of the composite surface can be observed in the scanning electron microscope of Model JEOL JSM-6010LA. The composite samples are cleaned properly, polished, air dried, fine-coated with platinum in the JEOL sputter ion coater, and then observed with the SEM. A thin film of platinum is vacuum evaporated onto the composite specimens to improve the conductivity before the micrographs are taken. The surface morphology of the composite specimens can be observed in the SEM.



Energy Dispersive Spectroscopy

This technique was used in conjunction with SEM with the aim of identifying the elements in the material. A 10 to 20 keV electron beam was directed at the surface of a sample. The energy of x-rays emitted from a depth of about 2 microns (0.08 mils) depends on the material from which they are being emitted.



OWENS CORNING INDIA S&T LAB CAPABILITIES

TEST TYPE	PROPERTIES	PRODUCT/SAMPLE TYPE	REFERENCE STANDARD
Material Data Cards	Curing Kinetics	Raw Paste (without fibers)	OC Internal Standards
	Thermal Conductivity	On cured SMC	
	Reactive Viscosity	SMC Paste with Fibers	
	Heat Capacity	Raw Paste (without Fibers)	
Mechanical testing	Tensile Strength, Modulus & Strain	Unidirectional Roving laminate	ISO 527-5
		Pultruded Profiles	ASTM D638
		Chopped Strand Mat Laminate	ISO 527-4 & IS 11551
		Glass Fiber Fabric Laminate	ISO 527-1
	Dry Tensile Strength	Single End & Multi End Roving	IS 11320
	Impregnated Tensile Strength	Single End Roving	ISO 9163 & ASTM D2343
	Cross Breaking Strength	Single End Roving	IS 11320
	Flexural Strength, Modulus & Strain	Unidirectional Roving laminate	ISO 14125
		Pultruded Profiles	ASTM D 790
		Chopped Strand Mat Laminate	ISO 178 & IS 11551
	Glass Fiber Fabric Laminate	ISO 14125	
	Inter-laminar Shear Strength (ILSS)	NOL ring	ASTM D2344
Analytical	Scanning Electron Microscope (SEM)	Composite Defect identification	-
		Microstructural analysis	-
		Energy dispersive spectroscopy (EDS)	-
	Glass Content - Fiber Weight & Volume Fraction	Composite Product/Laminate	ISO 1172
	Die Penetration	Pultruded Insulator Rod	IEC 62217
Thermoplastic lab	Tensile Strength, Modulus & Strain	Long Fiber Thermoplastics	ISO 527
	Impact Testing (Izod & Charpy)	Long Fiber Thermoplastics	ASTM D 256 & ISO 179 1eA/1eU
	Flexural Strength, Modulus & Strain	Long Fiber Thermoplastics	ISO 178
	Melt Flow Index	Thermoplastics	ASTMD 1238/ISO 1133
Chemical Testing	Epoxy Equivalent Weight	Resin & Chemicals	-
	Viscosity	Resin & Chemicals	-
	Acid Value	Resin & Chemicals	-
Pultrusion Mimic Lab for Central Strength Membrane rod of Telecom cable	Tensile Strength, Modulus & Strain	Telecom Center support member	ASTM D 3916
	Heat Stress test	Telecom Center support member	-
	Flexural Strength, Modulus & Strain	Telecom Center support member	ASTM D 790, D3916
	Coefficient of Thermal expansion	Telecom Center support member	ASTM D 696
Wet Lab	Wet Through	Chopped Strand Mat	P04-DA- OC Standard
	Wet Out	Chopped Strand Mat	P04-DA- OC Standard
	Confirmability	Chopped Strand Mat	IS 11551
	Resin Consumption	Chopped Strand Mat	IS 11551
Vacuum Infusion lab	Laminate preparation for mechanical testing	Glass roving & Fabric	-

Talk to an expert

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