



ECR DIRECT ROVING

Application

ER-469L roving is continuous and single-end roving made of standard ER-glass. Mainly utilized in filament winding and weaving process. ER-469L roving is designed for composite requires maximum wet-out and wet-out consistency.

ER-469L is compatible with polyester, vinyl ester and epoxy resin systems. For epoxy resin systems, it's just recommended for general-purpose applications.

Properties

Outstanding process properties

1. Stable roving density.
2. Excellent abrasion resistance, lower fuzz and on sizing deposit on contact point.
3. Zero catenary, easily opened strands.
4. Low resin demand during process.
5. Excellent package transfer.

High laminate properties

1. High laminate mechanical properties and wet strength retention.
2. For general polyester and vinyl ester resins, exhibit mechanical properties equal or better than E-glass roving.
3. Strong bonding between the glass fibers and the resin matrix due to the special designed sizing, the finished laminate has high wet strength retention because the laminate has high level resistance to hydrolytic attack.

Product Description

Identification Number	Linear Density(TEX)	Linear Density(Yield)	Filament Diameter(micron)	LOI(%)	Moisture
ER-469L-2200	2200	225	24	0.40	0.1Max.

Typical Laminate Mechanical Properties

Property	Unit	Minimum Average Value			ASTM Method
		Epoxy	Polyester	Vinyl ester	
Apparent Interlaminar Shear Strength-Dry	Mpa	68.6	61.4	64	D2344
Apparent Interlaminar Shear Strength-After 72-hour in boiling water	Mpa	65.1	57.01	61.4	D2344
Retention	%	94.9	93	96	

Mechanical Properties Tested on the Pipe

Description	Unit	Testing Results(Average Value)	Remarks	
Pipe Thickness	mm	7.3	Remarks	
STIS	Pa	7500		
EIIF	Mpa	15700		
Weight per Meter	kgs	16.60		
ATS	Mpa	57.0		
HTS	Mpa	189		
Pipe LOI	Resin	kgs	38.0	
	Chop Roving	kgs	13.1	CPIC ER-10K
	Hoop Roving	kgs	13.1	CPIC ER-469L-2200
	Sand	kgs	35.8	
Liner Thickness	mm	1.5		
Liner Cracks	%	13.58		