

BEYOND LIMITS

T²LINK[®]

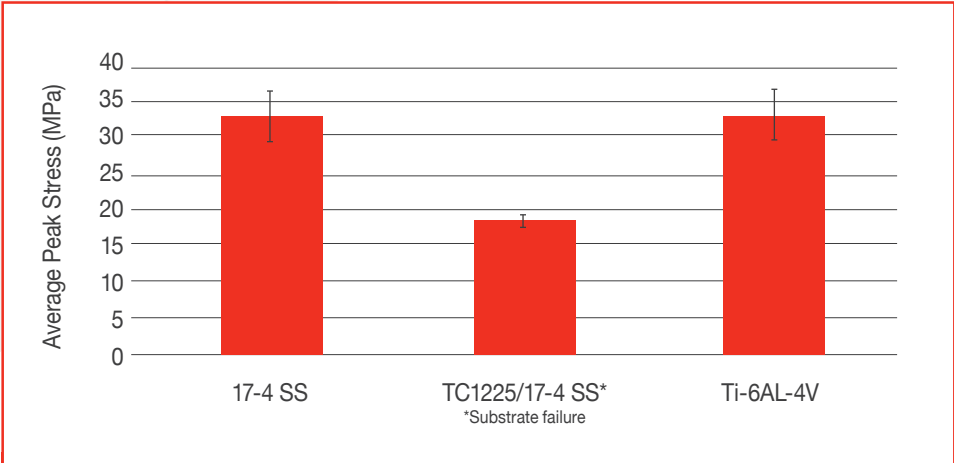
TECHNICAL PACKAGE

An advanced engineering thermoplastic adhesive
for ultimate performance and processability.

GO BEYOND LIMITS

T-Link®, our advanced engineering thermoplastic adhesive, combines superior adhesion with the processing characteristics of a thermoplastic. T-Link® adhesion can also be consolidated into a composite structure quickly.

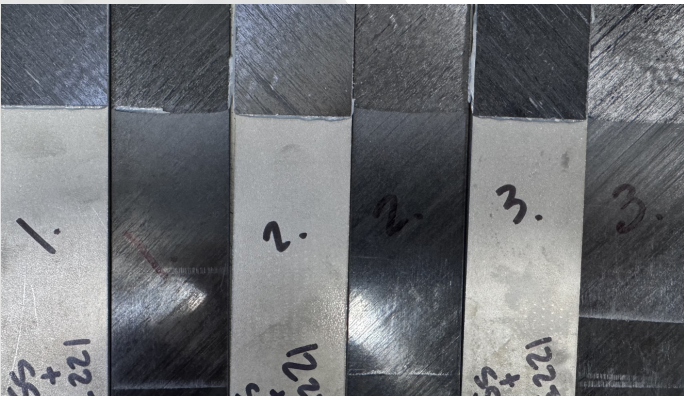
L-F620 LAP SHEAR STRENGTH



TEST CONDITIONS

- All substrates grit blasted and solvent rinsed
- Conditioned for 20 minutes at 360°F [182°C]
- ASTM 5868

SUBSTRATE	SUBSTRATE THICKNESS (mm)	L-F620 BONDLINE (mm)	LAP SHEAR STRENGTH (MPa)	FAILURE MODE
17-4 stainless steel	3.1	0.06	33	Cohesive
Toray Cetex TC1225 LMPAEK/17-4 stainless steel	2.3/3.1	0.03	19	Interlaminar substrate failure
Titanium-6AL-4V	1.63	0.08	33	Cohesive



Abraded 17-4 SS/TC1225 lap shear composite substrate failure.



T-LINK COMPOSITE PERFORMANCE

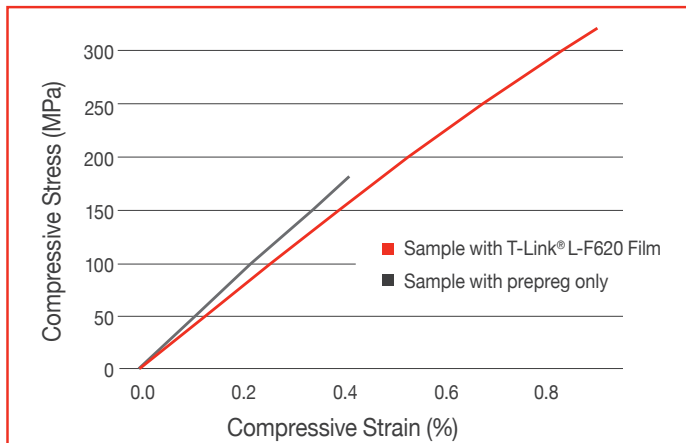
TOUGHER COMPOSITE PERFORMANCE

- Increased ductility, flexural performance, peel strength, energy absorption, and compression-after-impact strength in layered epoxy carbon-fiber structures.

DESIGN FLEXIBILITY FOR DEMANDING APPLICATIONS

- Enables manufacturers to explore thinner, lighter, and more impact resistant structures for applications with high flexural load requirements, including aerospace and sporting goods applications.

COMPRESSION AFTER IMPACT



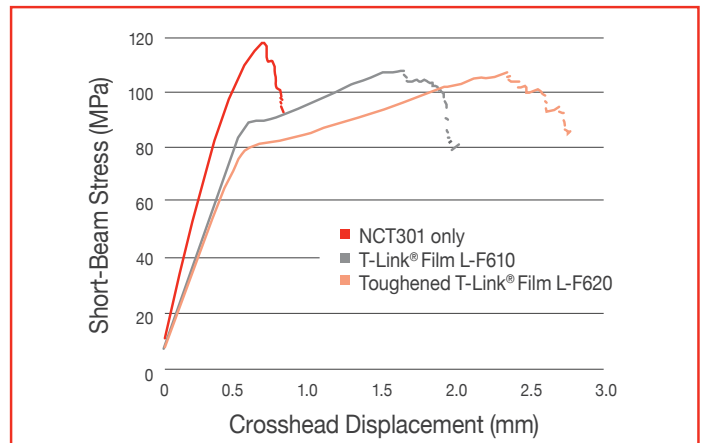
RESULTS

There is a **66% increase in strength** in samples made with T-Link® film and prepreg layers compared to samples made with prepreg layers only.

Layup details:

NCT301 TR50S G150 [0/+45/-45/90/0/+45/-45/90/90/-45/+45/0/90/-45/+45/0]2s, 32 ply with or without alternating interleaf 1 mil L-F620, 31 ply
Heated press cured 135°C (275°F) for 75 minutes, 100 psi

SHORT BEAM SHEAR



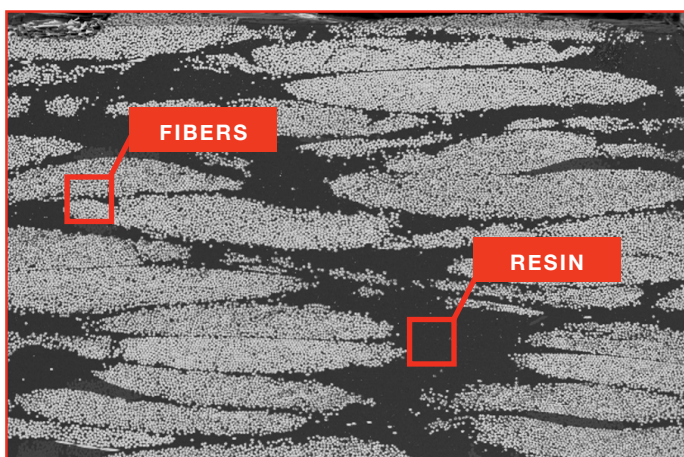
RESULTS

Toughened T-Link® film L-F620 increases mechanical performance in the short beam shear test (ASTM D2344) compared to samples without T-Link® material.

Layup details:

NCT301 TR50S G150, 30 ply with or without alternating 1 mil L-F620, 29 ply interleaf
Heated press cured 135°C (275°F) for 60 minutes, 100 psi

T-LINK® S-2 GLASS COMPOSITE WET OUT



RESULTS

T-Link® resin in a composite matrix with good fiber wet-out and no voids.

5 mil thick film (25 wt% resin content)



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T-LINK PORTFOLIO



PELLETS
Injection moldable
and extrudable



MICROPELLETS
Used as a binder resin for
textiles and nonwoven fabrics



FILM
Processed with traditional
press equipment



YARN/FILAMENTS
Co-woven or sewn into
advanced composite fabrics

T-LINK SELECTION GUIDE

PRODUCT	GRADES	Melt Index 190°C @ 2.16kg (ASTM D1238)	APPEARANCE	LAP SHEAR STRENGTH ¹	PEEL STRENGTH ²	FLEXURAL STRENGTH/ MODULUS (ASTM D790)	APPLICATIONS
L-TE01 T-LINK® PELLETS	1.5-2.5 mm diameter	10 dg/min	Translucent	10-15 MPa	1-2 N/mm	104 MPa/ 2.9 GPa	– Base resin or modifier in formulated products
L-TE20 TOUGHENED T-LINK® PELLETS	1.5-2.5 mm diameter	9 dg/min	Opaque	18-25 MPa	3-4 N/mm	86 MPa/ 2.4 GPa	– Compression molding, injection molding, and overmolding
L-TE01 T-LINK® MICROPELLETS	0.6-0.8 mm diameter	10 dg/min	Translucent	10-15 MPa	1-2 N/mm	104 MPa/ 2.9 GPa	– Precise areal weight loading of resin on fabrics
L-TE20 TOUGHENED T-LINK® MICROPELLETS	0.6-0.8 mm diameter	9 dg/min	Opaque	18-25 MPa	3-4 N/mm	86 MPa/ 2.4 GPa	– Modifier in formulated products
L-F610 T-LINK® FILM	2.5 mil [63.5 µm], 5 mil [127 µm]	10 dg/min	Translucent	10-15 MPa	1-2 N/mm	104 MPa/ 2.9 GPa	– Dry, easy to handle
L-F620 TOUGHENED T-LINK® FILM	1 mil [25.4 µm], 2.5 mil [63.5 µm], 5 mil [127 µm]	9 dg/min	Opaque	18-25 MPa	3-4 N/mm	86 MPa/ 2.4 GPa	– Consistent, efficient delivery of resin system for composite manufacturing
COATED ARAMID YARN USING TOUGHENED T-LINK® L-TE20	3360 dTex aramid fiber coated with T-Link® to 5250 dTex	9 dg/min	Converted forms				– Cowoven with reinforcement fibers
MONOFILAMENT (DEVELOPMENTAL TECHNOLOGY) USING TOUGHENED T-LINK® L-TE20	450, 850, 2400 dTex	9 dg/min					– Drapable fabric with consistent resin placement – Weaving, knitting, braiding

Typical values. This data does not represent a specification.



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