CHEMICAL RESISTANCE OF INNEGRA™ FIBER

ACIDS

CHEMICAL	CONCENTRATION (%)	TEMPERATURE (DEG. °C)	TIME (HOURS)	EFFECT ON BREAK STRENGTH
Acetic	40	20	96	Slight
Hydrochloric	10	20	142	None
Nitric	10	20	142	None
Phosphoric	10	20	96	None
Sulfuric	10	20	142	None
Sulfuric (battery acid)	30	20	96	None
Sulfuric	70	20	96	None

BASES

CHEMICAL	CONCENTRATION (%)	TEMPERATURE (DEG. °C)	TIME (HOURS)	EFFECT ON BREAK STRENGTH
Ammonium Hydroxide	28	20	96	Slight
Sodium Hydroxide	50	20	142	None
Sodium Hydroxide	10	20	142	None
Sodium Hydroxide (bleach)	0.10	20	96	None

ORGANIC SOLVENTS

CHEMICAL	CONCENTRATION (%)	TEMPERATURE (DEG. °C)	TIME (HOURS)	EFFECT ON BREAK STRENGTH
Acetone	100	20	96	None
Ethyl Alcohol (denatured)	85	20	96	Slight
Methyl Alcohol	100	20	96	None
Isopropyl Alcohol	100	20	96	Slight
Gasoline (87 octane unleaded)	100	20	264	None
Diesel Fuel	100	20	96	None
Methyl Ethyl Ketone	100	20	96	None
Toluene	100	20	96	Slight

MISCELLANEOUS

CHEMICAL	CONCENTRATION (%)	TEMPERATURE (DEG. °C)	TIME (HOURS)	EFFECT ON BREAK STRENGTH
Tap Water	100	20	96	None
Brake Fluid	100	20	168	None
Coca Cola (classic)	100	20	96	None
Transmission Fluid	100	20	264	None
Hydraulic Fluid	100	20	96	None
Motor Oil, 10W40	100	20	96	None
Sodium Chloride	5	20	96	None
Salt Water	5%	20	96	None

Graph Key:

Effects on Break Strength

- None = 0 - 10%
- Slight = 11 - 20%
- Moderate = 21 - 30%
- Appreciable = 31 - 50%
- Degraded = >50%

ACCESS · ASSESS & STABILIZE · EXTRACT · EVACUATION

NORTH AMERICAN RESCUE®

www.NARescue.com

Innovation & Engineering | Technology

Notes:

Due to the extreme hydrophobic nature of the Innegra fiber, salt water has no effect on fiber deterioration (through absorption), no weakening of the break strength, & no change in knot strength. Ocean saltwater contains ~3.5% salt but Innegra was tested at 5% for 96 hrs. Cold & Arctic weather pathology also does not negatively effect the fiber - which actually gains strength down to -90°C without loss of "hand".