



MASON INDUSTRIES, Inc.

MERCER RUBBER Co.

350 Rabro Drive • Hauppauge, NY 11788

Mason- 631/348-0282 • Info@Mason-Ind.com

Mercer- 631/582-1524 • Info@Mercer-Rubber.com

FAX 631/348-0279



A Comparison Of Tire Cord and Elastomeric Materials Used in Spherical and Other Style Expansion Joints

SF-930-2 BULLETIN

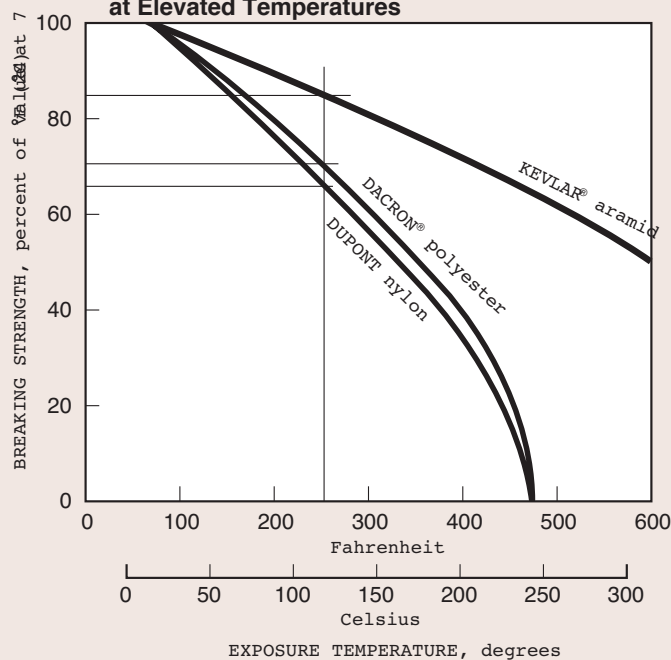
DUPONT INDUSTRIAL YARNS

3. Breaking Strength Retained by Unscoured Yarns After Exposure to Hot, Dry Air

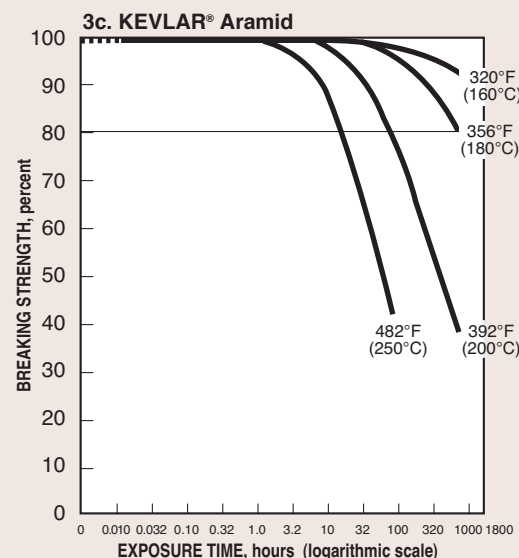
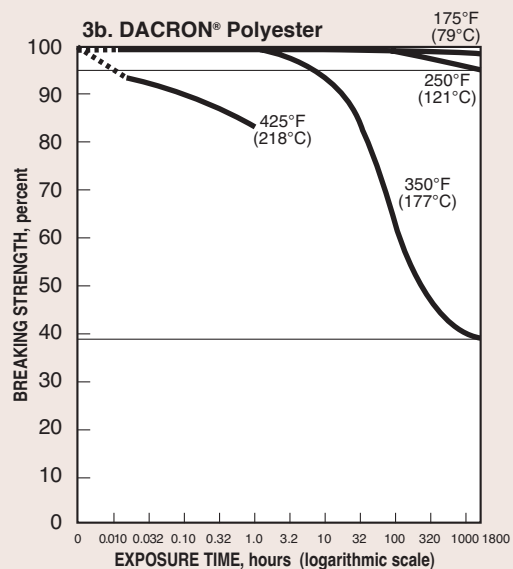
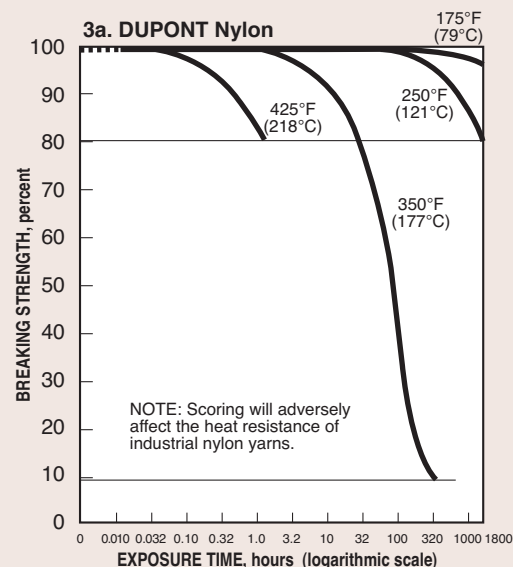
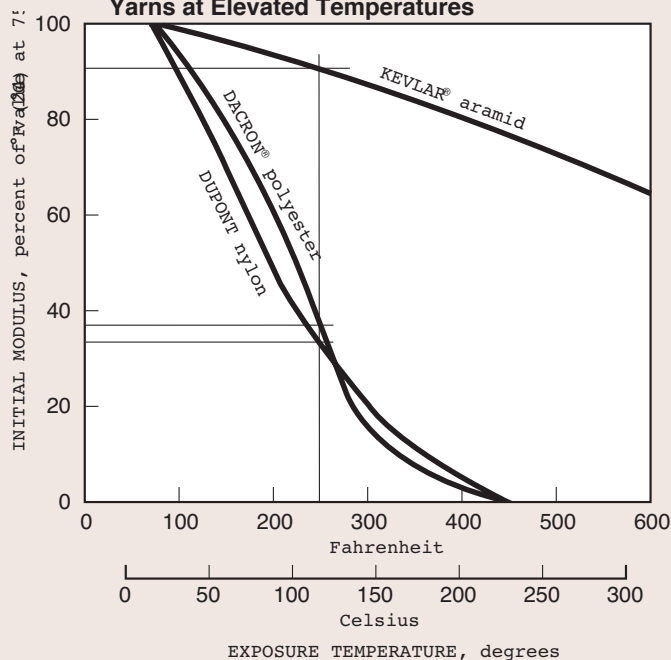
Breaking Strengths at 70°F (21°C), 65% R.H. before and after exposure

NOTE: At 250°F, there is no significant change in Kevlar Breaking Strength, Table 1; Modulus, Table 2; or Aging Properties, Table 3c.

1. Strength of Typical DuPont Industrial Yarns at Elevated Temperatures



2. Initial Modulus of Typical DuPont Industrial Yarns at Elevated Temperatures



Elastomers

	Natural Rubber	EPDM	Neoprene®	Hypalon®	ChloroButyl	Nitrile
Tensile Strength	Over 3000 psi	Over 3000 psi	Over 3000 psi	Over 3000 psi	Over 2500 psi	Over 2000 psi
Carbon Black Reinforcement	(2122 kg/cm²)	(2122 kg/cm²)	(2122 kg/cm²)	(2122 kg/cm²)	(1768 kg/cm²)	(1415 kg/cm²)
Adhesion to Metals	Excellent	Good to Excellent	Excellent	Excellent	Good	Excellent
Adhesion to Fabric	Excellent	Good	Excellent	Good	Good	Good
Tear Resistance	Good	Good	Good	Fair	Good	Good
Abrasion Resistance	Excellent	Excellent	Excellent	Excellent	Fair	Good
Permeability to Gases	Fair	Fair	Low	Low to Very Low	Good	Fair
Acid Resistance						
Dilute	Fair To Good	Excellent	Excellent	Excellent	Good	Good
Concentrated	Fair To Good	Excellent	Good	Very Good	Fair	Fair
Resistance to:						
Swelling in Lubricating Oil	Poor	Poor	Good	Very Good	Poor	Excellent
Gasoline	Poor	Poor	Good	Good	Poor	Excellent
Animal and Vegetable Oils	Fair	Good	Good	Good	Good	Excellent
Water Absorption	Very Good	Very Good	Good	Very Good	Very Good	Good
Oxidation	Good	Excellent	Excellent	Excellent	Excellent	Good
Ozone	Fair	Outstanding	Excellent	Outstanding	Excellent	Fair
Sunlight Aging	Poor	Outstanding	Very Good	Outstanding	Excellent	Poor
Heat Aging	Fair	Excellent	Good	Excellent	Excellent	Good
Temp. Ratings Continuous Service						
*Hot	180°F (82°C)	250°F (121°C)	200°F (93°C)	250°F (121°C)	250°F (121°C)	220°F (104°C)
*Cold	minus 10°F (minus 23°C)	minus 60°F (minus 51°C)	minus 10°F (minus 23°C)	minus 10°F (minus 23°C)	minus 10°F (minus 23°C)	10°F (minus 12°C)

*Special compounds may exceed these ratings.



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