

LUMAT **FOUR**

HIGH PERFORMANCE YARN

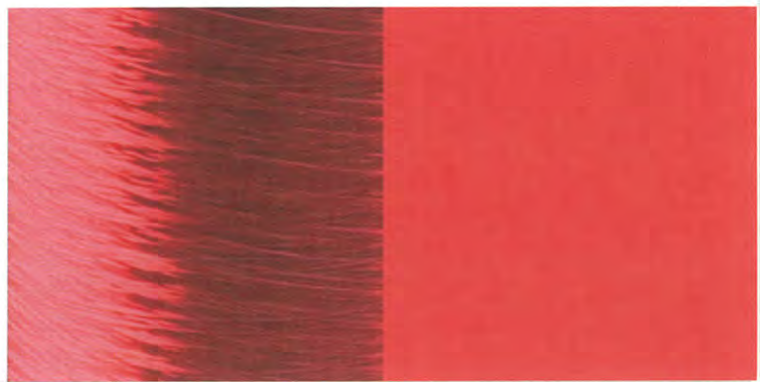
SPECIFICATION SHEET

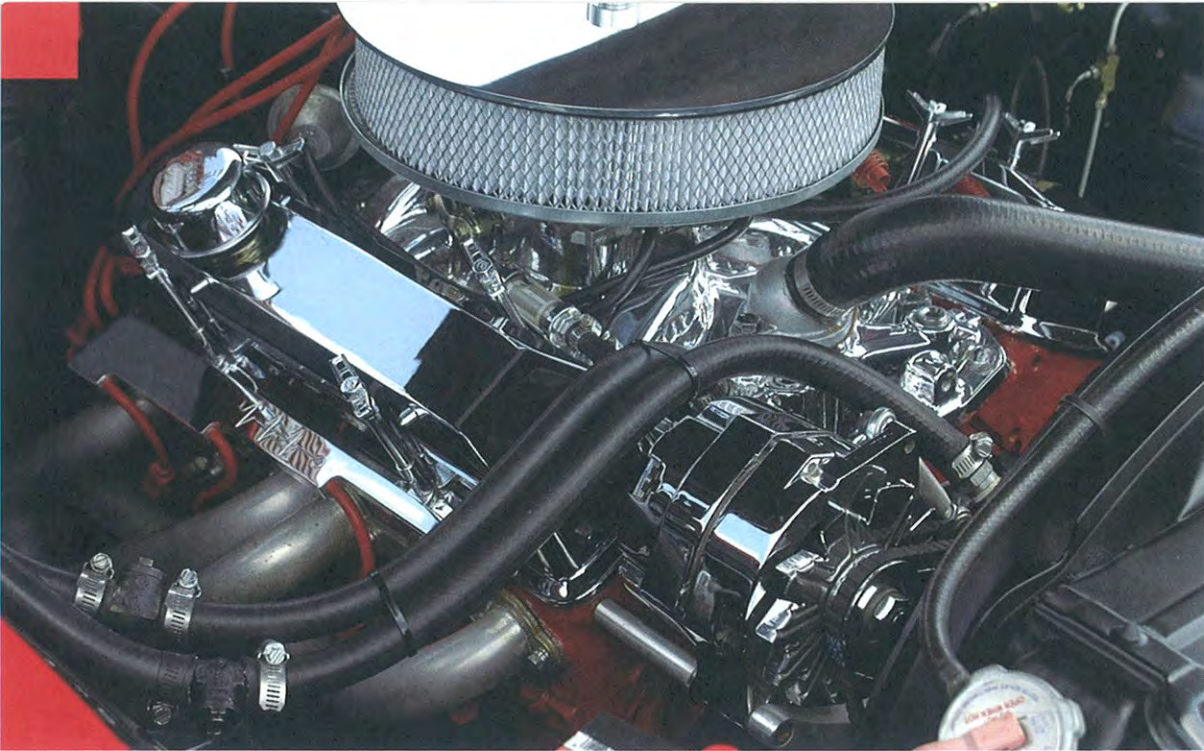
HERCULES - Para Aramid Yarn

Properties	Units	Denier 1000/655 filaments	Denier 1500/1000 filaments
Linear density	Denier	1030	1550
Breaking force	N	232	350
Breaking Tenacity	g/d	22,5	22,6
Elongation at break	%	3,6	3,9
Elongation at Load at 45N	%	0,9	0,8
Hot Air Shrinkage 4min 160°C at 0,5 g/d	%	0,1	0,1
Strength retention 48hr200°C	%	90	90
Moisture regain RH55% at 23°C	%	7	7

LUMAT USA LLC
 5020 West 101 Parkway
 Suite 100, Cary NC 27513
 Phone: 919.380.9081 Fax: 919.380.3363

The above mentioned information is given in good faith
 but without any warranty





LUMATFOUR

HIGH PERFORMANCE YARN

SPECIFICATION SHEET

HERCULES – Para Aramid Yarn

1. External abrasion resistance

	Item	Hercules
Coefficient of Friction	Static Friction [F/F]	0,303
	Kinetic Friction [F/F]	0,578
	Static Friction[F/M]	0,058
	Kinetic Friction[F/M]	0,405

2. Yarn to yarn abrasion test

	1	2	3	avg
Hercules	4431	5710	4866	5002

Standard: ASTM D6611

Machinery Details: DI-Type Yarn Cohesion Tester, DI-200

3. Fatigue

	Item	Hercules
Fatigue	Cord Strength (kg)	59,0
	Strength after Belt fatigue (kgf)	36,4
	Strength Retention(%)	61,7

* Belt Fatigue Test condition: Spindle 0.5 inch, 100k cycle. 70kg load

Heat setting condition	Load (kgf)	1 / 1.5 / 0.6 / 0.6
	Temp (°C)	160/240/ 160/240
	Recipe	B5/CY



Ultraviolet stability of **HERCULES** versus other yarn

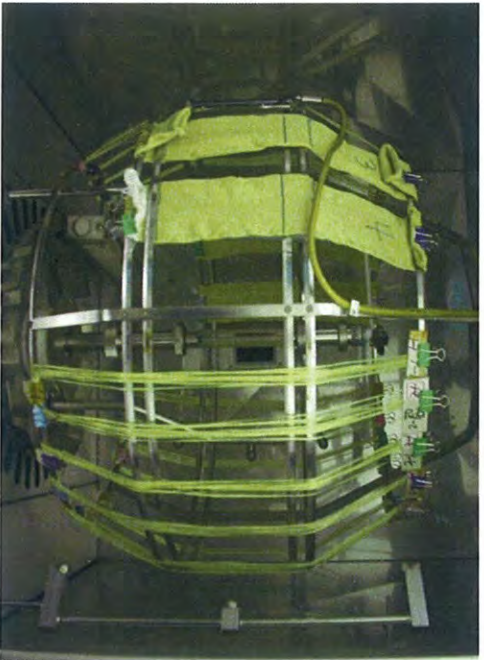
[Tensile Strength (kg)]

Time (days)	1,500 de			
	HERCULES	Competitor-1	Competitor-2	Competitor-3
0	35.99	35.28	34.52	36.91
7	30.13	31.48	31.29	32.05
14	27.32	28.31	27.15	29.31
21	24.68	25.44	26.43	27.02
28	23.38	23.47	24.91	24.58

※ UV stability of each yarns were obtained with a "Weather-O-meter" equipped with a xenon arc.
(Standard Test Method : ISO 105 B02)

[Filament I.V]

	1,500 de			
	HERCULES	Competitor-1	Competitor-2	Competitor-3
Before	5.19	5.43	5.24	5.06
After 168HR	5.10	5.41	5.14	5.03
$\Delta I.V$	▼ 0.09	▼ 0.02	▼ 0.10	▼ 0.03



< Weather-O-meter Condition >
 Chamber Temperature : 42°C
 Humidity : 30%
 Irradiance : 1.10 W/m²

