

# Filament

More than 50 years ago, Kolon Industries, Inc. was the first company to introduce nylon yarn in Korea. From that beginning, Kolon has become a major global fiber producer, utilizing the strength of technologies developed by Research and Development efforts. Out of this technological back ground, Kolon developed para-aramid fiber material in 2005 which they have named Heracron<sup>®</sup>. The Heracron<sup>®</sup> Filament is classified as three types; : HF200(Standard), HF100(High tenacity) and HF300(High modulus). To meet the customers' satisfaction and needs, Kolon will keep move forward with capacity expansions and continuous development efforts. Kolon will be the best solutions for you.

# Filament Properties

## HF100 High Tenacity

Linear density				Filament Count	Breaking tenacity			Breaking force		Elongation at break	LASE				Youngs Modulus	
(Nominal)		(Effective)			[g/d]	[MPa]	[cN/tex]	[kgf]	[N]		0.5%		1.0%		[g/d]	[GPa]
[denier]	[dtex]	[denier]	[dtex]	[ea]						[kgf]	[N]	[kgf]	[N]	[kgf]		
200*	220	202	230	133	27.0	3440	238	5.5	53	2.9	1.2	12	1.9	19	890	113
400*	440	404	460	267	27.0	3440	238	10.9	107	3.1	2.4	24	3.8	37	870	111
600	670	606	680	400	27.0	3440	238	16.4	160	3.3	3.3	32	5.2	51	850	108
840	930	850	940	665	26.5	3370	234	22.5	221	3.4	3.7	36	7.0	69	800	102
1000	1110	1010	1120	665	26.5	3370	234	26.8	262	3.5	4.2	41	7.9	77	800	102
1410	1570	1420	1580	1000	26.0	3310	229	36.9	362	3.6	5.5	54	10.5	103	770	98
1500	1670	1515	1680	1000	26.0	3310	229	39.4	386	3.6	6.3	62	11.9	117	770	98
2820	3140	2840	3160	2000	25.5	3240	225	72.4	710	3.9	10.9	107	19.3	189	670	85

ASTM D1907 Option 6

ASTM D885

\* Development in Process

\*\* Measured at twist

\*\*\*Tube Size : 94mm x 216mm

## HF200 Standard Tenacity

Linear density				Filament Count	Breaking tenacity			Breaking force		Elongation at break	LASE				Young's Modulus	
(Nominal)		(Effective)			[g/d]	[MPa]	[cN/tex]	[kgf]	[N]		0.5%		1.0%		[g/d]	[GPa]
[denier]	[dtex]	[denier]	[dtex]	[ea]						[kgf]	[N]	[kgf]	[N]	[kgf]		
200*	220	202	230	133	24.0	3050	212	4.8	48	2.8	1.1	11	1.8	18	860	109
400*	440	404	460	267	24.0	3050	212	9.7	95	3.0	2.2	22	3.6	35	850	108
600	670	606	680	400	24.0	3050	212	14.5	143	3.1	3.0	29	5.3	52	800	102
840	930	850	940	560	24.0	3050	212	20.4	200	3.2	4.5	44	7.5	74	800	102
1000	1110	1010	1120	665	23.5	2990	207	23.7	233	3.2	4.8	47	8.0	78	720	92
1450	1610	1460	1620	1000	23.5	2990	207	34.3	342	3.3	6.9	68	11.8	116	720	92
1500	1670	1515	1680	1000	23.5	2990	207	35.6	342	3.3	7.0	69	12.0	118	720	92
2000	2220	2020	2240	1330	23.0	2930	203	46.5	436	3.5	10.0	98	16.0	157	700	89
2250	2520	2270	2540	1000	23.0	2930	203	52.2	512	3.6	10.5	103	17.0	167	680	87
3000	3330	3030	3360	2000	23.0	2930	203	69.7	683	3.6	12.5	123	22.0	216	650	83

ASTM D1907 Option 6

ASTM D885

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\*\* Measured at twist

\*\*\*Tube Size : 94mm x 216mm

## HF300 High Modulus

Linear density				Filament Count	Breaking tenacity			Breaking force		Elongation at break	LASE				Youngs Modulus	
(Nominal)		(Effective)			[g/d]	[MPa]	[cN/tex]	[kgf]	[N]		0.5%		1.0%		[g/d]	[GPa]
[denier]	[dtex]	[denier]	[dtex]	[ea]						[kgf]	[N]	[kgf]	[N]	[kgf]		
1420	1580	1430	1590	1000	23.0	2930	203	32.9	323	2.5	7.2	71	13.5	132	930	118
2840	3160	2860	3180	2000	23.0	2930	203	65.8	645	2.6	13.5	132	25.0	245	870	111
5680	6320	5720	6360	4000	22.0	2800	194	126.0	1234	2.8	26.0	255	50.0	490	820	104
7100	7900	7150	7950	5000	22.0	2800	194	157.0	1543	2.9	30.0	294	60.0	588	780	99
8520	9480	8580	9540	6000	22.0	2800	194	189.0	1851	3.0	33.0	324	64.0	628	730	93
9940	11060	10010	11130	7000	21.5	2740	190	210.0	2059	3.1	37.0	363	72.0	706	710	90
11360	12640	11440	12720	8000	21.5	2740	190	240.0	2354	3.2	41.0	402	80.0	785	690	88
14200	15800	14300	15900	10000	21.5	2740	190	300.0	2942	3.4	50.0	490	95.0	932	660	84

ASTM D1907 Option 5

ASTM D885

\* Development in Process

\*\* Measured at twist

\*\*\*Tube Size : 94mm x 216mm

The Following technical information and data should be considered representative or typical only and should not be used for specification  
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