

## Report SS051-18

15<sup>th</sup> June 2018

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North Yorkshire, HG5 8BS

**Sirdar Spinning Reference** 18-070

Cut-Tex® PRO C1341 Grey for cut resistance according to ASTM F2992-15:



Date tested: 13<sup>th</sup> June 2018  
State of product: Unused, Conditioned at 23+/-2°C 50+/-5%RH

### Conclusions

	Load (g)	Level
Cut-Tex® PRO C1341 Grey	2681	A5



Maria Kramer (Technical Manager)

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### Test Procedure

LT002.0 Measurement of cut resistance using a Tomodynamometer (TDM-100) according to ASTM F2992-15

### Requirements ANSI/ISEA 105-2016; Cut Resistance Clause 5.1.1 – Levels of Performance

Level	0	A1	A2	A3	A4	A5	A6	A7	A8	A9
Load (g) required to cut through material	<200	≥200	≥500	≥1000	≥1500	≥2200	≥3000	≥4000	≥5000	≥6000

Validated blades lot # 3942 319 2017 704379-001001; Blade correction factor = 0.94

Test has been carried out using the TDM-100 machine.

### Results

ASTM F2992-15 Cut resistance

#### ❖ Cut-Tex® PRO C1341 Grey

##### • Sample 1

Load (g)	Corrected Load* (g)	Measured Cut Through Distance (mm)	Normalised Cut Through Distance (mm)		
1700	3400	5.45	5.12		
1700	3400	10.76	10.11		
1400	2800	14.88	13.99		
1400	2800	15.26	14.34		
1400	2800	22.41	21.07		
1400	2800	24.85	23.36		
1400	2800	20.58	19.35		
1200	2400	22.40	21.06		
1200	2400	35.61	33.47		
1200	2400	23.60	22.18		
1200	2400	21.34	20.06		
1000	2000	46.98	44.16		
1000	2000	42.51	39.96		
1000	2000	43.11	40.52		
1000	2000	49.53	46.56		
<i>Standard Deviation</i>	206.7	<i>95% Confidence Limit</i>	446	$r^2$	0.85
Load required to cut through the samples after 20mm				<b>2624</b>	

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- Sample 2

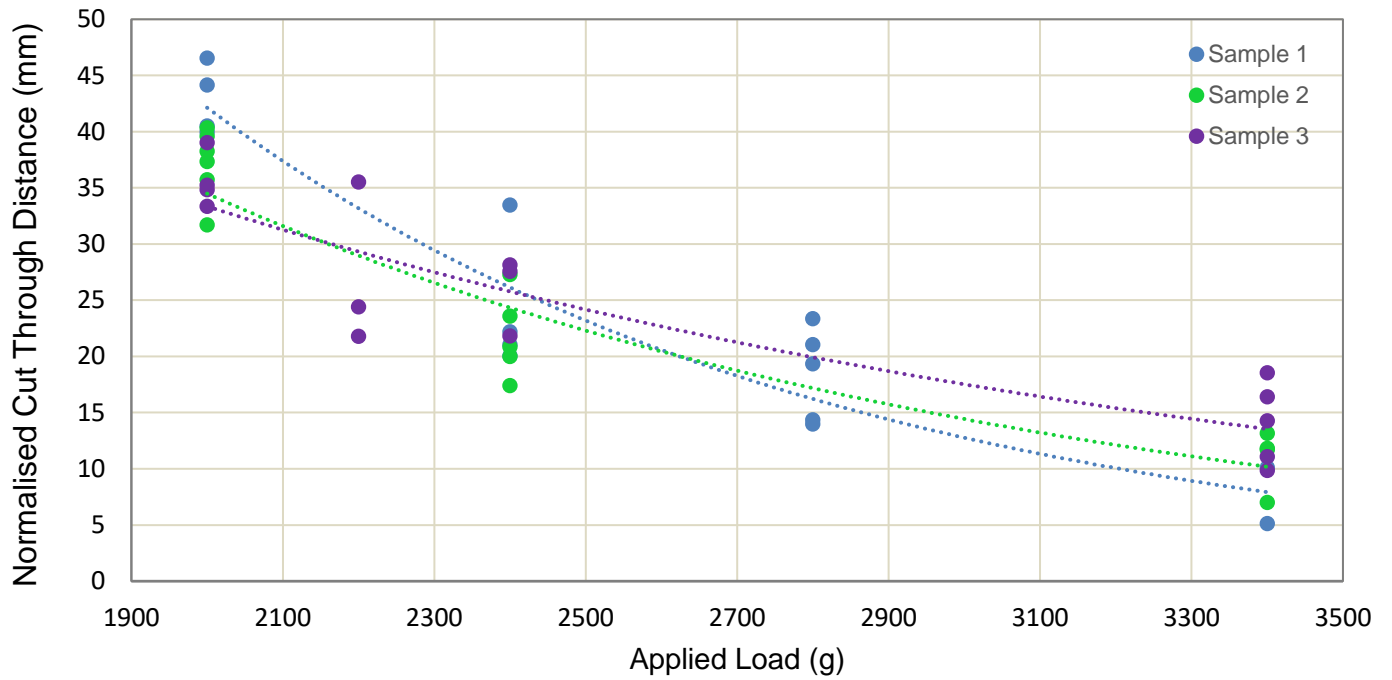
Load (g)	Corrected Load* (g)	Measured Cut Through Distance (mm)	Normalised Cut Through Distance (mm)		
1000	2000	33.73	31.71		
1000	2000	40.70	38.26		
1000	2000	39.73	37.35		
1000	2000	42.13	39.60		
1000	2000	38.00	35.72		
1000	2000	42.91	40.34		
1200	2400	21.28	20.00		
1200	2400	22.18	20.85		
1200	2400	18.53	17.42		
1200	2400	25.10	23.59		
1200	2400	29.04	27.30		
1700	3400	7.46	7.01		
1700	3400	12.45	11.70		
1700	3400	13.99	13.15		
1700	3400	12.57	11.82		
<i>Standard Deviation</i>	233.5	<i>95% Confidence Limit</i>	505	$r^2$	0.88
Load required to cut through the samples after 20mm				<b>2625</b>	

- Sample 3

Load (g)	Corrected Load* (g)	Measured Cut Through Distance (mm)	Normalised Cut Through Distance (mm)		
1100	2200	37.78	35.51		
1100	2200	23.19	21.80		
1100	2200	25.98	24.42		
1000	2000	37.48	35.23		
1000	2000	35.50	33.37		
1000	2000	41.52	39.03		
1000	2000	37.06	34.84		
1700	3400	19.74	18.56		
1700	3400	10.50	9.87		
1700	3400	11.80	11.09		
1700	3400	17.47	16.42		
1700	3400	15.19	14.28		
1200	2400	23.21	21.82		
1200	2400	29.33	27.57		
1200	2400	29.94	28.14		
<i>Standard Deviation</i>	317.9	<i>95% Confidence Limit</i>	687	$r^2$	0.81
Load required to cut through the samples after 20mm				<b>2794</b>	

\*Note that the load is multiplied by 2 to correct for beam length being twice distance away from sample

Normalised Cut Through Distance Vs Applied Load



Mean load required to cut through samples after 20mm	2681g
<b>Final performance level</b>	<b>A5</b>

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