



September 6, 2017

## HIRAOKA HG SERIES BLOCK-OUT Physical Properties

Test Items	HG102-B	HG212-B	HG313-B	HG412-B	Unit	Test Method
Width	2040	2040	2040	2040	mm	ASTM D 751
	80.3	80.3	80.3	80.3	inch	
Total Mass	800	940	1080	1470	g/m <sup>2</sup>	ASTM D 751
	23.6	27.7	31.9	43.4	oz/yd <sup>2</sup>	
Thickness	0.63	0.75	0.9	1.2	mm	ASTM D 751
	24.8	29.5	35.4	47.2	mil.	
Tensile Strength (Cut Strip) Warp Fill	3100	5100	6100	8300	N/5cm	ASTM D 751
	2800	5200	5900	7000		
	354	582	697	948	lbs/inch	
	320	594	674	799		
Tear Strength (Trapezoid) Warp Fill	160	400	670	950	N	ASTM D 751
	160	400	670	900		
	36	90	151	214	lbs	
	36	90	151	202		
Tear Strength (Trapezoid) Warp Fill	300	630	1100	1300	N	DIN 53363
	300	630	1000	1200		
Adhesion	100	130	140	150	N/5cm	ASTM D 751
	11	15	16	17	lbs/inch	
Light Transmission	0	0	0	0	%	ISO 9050
Temperature Resistance	-40 / +70	-40 / +70	-40 / +70	-40 / +70	°C	ASTM D2136 MSAJ/M-03-2003
	-40 / +158	-40 / +158	-40 / +158	-40 / +158	°F	
Flame Retardancy	B-s2,d0	B-s2,d0	B-s2,d0	C-s2,d0	EN13501-1	
	meet	meet	meet	meet	NFPA-701	
	meet	meet	meet	meet	ASTM E-84	

The above data reflects average measured values.