

Flame Retardant Solutions - Product Properties

Non-Halogenated

GRADE	POLYMER	COLOR	DENSITY (1)	STRAIN AT BREAK (2,a)	STRESS AT BREAK (3,a)	TENSILE MODULUS (4,a)	UL94 (5)				HM (6)				HAI (6)				GWI (7)				GWT (8)				CTI (9)	RTI Elec.(10)				RTI Imp. (10)				RTI Str.(10)				BALL PRESSURE TEST (11)	EIS CLASS (mm) (12)	FEATURES																																	
							0.4	0.75	1.5	3	0.4	0.75	1.5	3	0.4	0.75	1.5	3	0.4	0.75	1.5	3	0.4	0.75	1.5	3		0.4	0.75	1.5	3	0.4	0.75	1.5	3	0.4	0.75	1.5	3				°C	°C	°C	°C																													
NON HALOGENATED																																																																											
CRASTIN®	FR680NH1 (*)	PBT-FR(40)	NC010	1.33	9.2	29	2700	V-0 0.8 mm								960				725				600											suitable for lasermarking.																																								
	FR682NH1	PBT-GF15FR(40)	NC010 OR162	1.44	3.3 3.6	84 80	6600 6500	-																600											high flow, elongation and CTI, suitable for lasermarking, black (BK591).																																								
	FR684NH1	PBT-GF25FR(40)	NC010 BK591 OR162	1.52	2.5 2.3 2.5	95 91 96	9400 9200 9500	-				4 1 0				-				960 960 960				750 750 800				600	-				130 130 130				-				125 125 125				-				140 140 140				220		high flow, elongation and CTI, suitable for lasermarking, basalt gray RAL7012 (GY090), white (WT173), orange (OR162), orange RAL2003 (OR168).																				
	FR685NH1	PBT-GF30FR(40)	NC BK OR 162	1.57	2.3 2.1	100 96 102	11100 10800 11600	V-0				4 4 1 0 4 1 0 0				0 0 0 0				960 960 960 960				750 750 750 800 825				600	75 130 130 130				75 125 125 125				75 140 140 140						suitable for lasermarking.																																
	FRHR5315NH	PBT-GF15FR(40)	NC010 BK591LM	1.44	2.8 2.8	77 77	6200 6200	-																600											hydrolysis resistant, suitable for lasermarking, BK219LT (lasertransparent black).																																								
	FRHR5325NH	PBT-GF25FR(40)	NC010 BK591LM BK219 LT OR162	1.52	2.5 2.2 2.0 2.2	95 90 92 99	9300 9000 9200 9500	-								960 960 960 0.8 & 1 mm				750 750 750 0.8 & 1 mm				600											hydrolysis resistant, suitable for lasermarking, BK219LT (lasertransparent black), orange (OR162).																																								
RYNITE®	HTR8813	TPC-FR(30+40)	BK320	1.23	150	11	450	V-0 0.8 mm																700 2 mm											thermoplastic elastomer (TPE), elastomer-ether-ester, Shore D 55.																																								
	FR533NH	PET-GF33FR(40)	NC010 BK507	1.61 1.60	0.9	85 82	13100 12900	V-0				5VA 5VA 5VA				0 0 0 0				0 0 0 0				-				960 960 960				-				825 775 850				300	155 155 155 155				-				160 170 170				-				160 170 170				230	130(B) 155(F) 180(H)	improved RTI, EN45545 / R23-HL1.												
	RE19036	PET-(GF+MD)45FR(40)	BK507	1.69	1.6	121	12200	-				V-0 5VB 2 mm				V-0 5VB													-				75 1.5 & 2 mm				75	75 1.5 & 2 mm				75	-				75 1.5 & 2 mm				75		100% post-consumer recycled.																						
ZYTEL®	FR7025V0F	PA66 FR(30)	NC010	1.16	10 / -	80 / -	3750 / -	V-0				V-0 V-0 V-0				4 3 3 1				1 0 0 0				960 960 960 960				960 775 775 775				600	-				130 130 130				75 75 75				-				85 85 85				240		(+), high flow, electrically friendly.																				
	FR7026V0F	PA66-FR(30)	NC010 BK001	1.16	10 / 21 10 / -	80 / 60 80 / -	3800 / 1800 3800 / -	V-0				V-0 0.8 mm				3 3 0.8 mm				3 2				0 0 0 0				960 960 960 960				960 960 960 960				600	-				130 0.8 mm				95 95 95				-				110 0.8 mm				110		(f2), high flow.																
	FR7025GWNH	PA66-GF25FR(30+40)	WT409	1.43	2.7 / 3.7	125 / 73	9500 / 6000	-				-				-				-				960 1.5 & 2 mm				960											450											GWFI optimized, suitable for lasermarking.																									
	FR7030V0NH	PA66-GF30FR(40)	NC010 BK314LM	1.42 1.40	2.7 / - 2.3 / 4.4	153 / - 145/103	10500 / - 10800/ 7800	-				V-1 V-0				V-0 V-0 V-0				-				2 0 0 0				-				0 0 0 0				-				960 930 960				725 750 800				600	-				140 140 140				-				125 125 125				-				140 140 140				250		improved processability, suitable for lasermarking, gray RAL7012 (GY), RAL7035 (GY).
	FR9525V0NH	PA66/6T-GF25FR(40)	NC010 BK458	1.40 1.40	2.2 / 2.2 2.2 / 2.2	110 / 90 109 / 90	9000 / 8700 8500 / 8400	V-0				V-0 5VA				V-0 5VA				2 0 0 0				1 1 1 0				960 960 960 960				700 725 725 725				600	160 160 160 160				-				155 155 155				-				155 155 155				155(F)		(f), improved flow, surface and RTI, suitable for lasermarking, EN45545: R22-HL2.																
	FR7030V0NH2	PA66-GF30FR(40)	NC010 BK314LM	1.48	3.1 / - 3.2 / -	174 / -	11800 / -	V-0																960 1 & 2 mm				960													775 1 & 2 mm				775	600																													
ZYTEL® HTN	HTN FE170016	PA-GF54FR(40)	BK337	1.67	1.7 / -	215 / -	19200 / -	V-0				V-0				-				4 3 0 -				0 0 0 -																						low warpage, grade restricted to Asia Pacific market.																													
	HTN FE170023	PA-GF57FR(40)	BK168	1.73	1.7 / -	240 / -	23000 / -	V-0				V-0				V-0				-				-				0 0 0 0																				600	65 65 65 65				65 65 65 65				65 65 65 65						low warpage, grade restricted to Asia Pacific market.												
	HTN FR42G30NH	PA-GF30FR(40)	BK337 NC010	1.47 1.45	1.7 / - 1.8 / -	134 / - 138 / -	11300 / - 10600 / -	V-0				V-0				V-0				4 3 0 0				0 0 0 0				960 960 960 960				960 800 800 825				600	130 130 130 130				115 115 115 120				125 125 125 130				270		superior reflow capability, super high flow, low moisture absorption, EN45545: R23-HL1.																								
	HTN FR42G45NHSR	PA-GF45FR	NC010 BK337	1.61	1.7 / - 1.8 / -	163 / - 175 / -	16500 / - 16000 / -	V-0				V-0				V-0				4 3 0 0				0 0 0 0				960 960 960 960				750 800 800 825				600	140 140 140 140				115 115 115 120				125 125 125 130						improved soldering resistance (dip- soldering),high flow, low moisture absorption.																								
	HTN FR52G20NH	PA6T/66-GF20FR(40)	NC010 BK337	1.36	2.4 / 2.2	135 / 120 135 / 123	8200 / 8600	V-0				V-0				V-0								960 - - 960				725 725				600	85 85 85 85				85 85 85 85				85 85 85 85						high flow, reflow optimized.																												
	HTN FR52G30NH	PA6T/66-GF30FR(40)	NC010 BK337	1.44	2.2 / 2 2.2 / -	150 / 130 150 / -	10500 / 10500	V-0				V-0				V-0				4 0 0 0				0 0 0 0				960 960 960 960				700 725 725 775				600	140 140 140 140				-				115 115 120				-				125 125 130				290	130(B) 155(F)	(r6)(f1), EN45545: R23+HL2, reflow optimized, suitable for lasermarking, gray RAL7011 (GY164), RAL7016 (GY165), RAL7035 (GY175), white RAL9003 (WT409), blue Pantone 300C (BL759A).																
	HTN FR52G30GWNH	PA6T/66-GF30FR(40)	NC010	1.46	1.9 / -	137 / -	11500 / -	V-0				V-0				V-0				4 2 0 0				0 0 0 0				-				960 960				775 775 850 875				600	140 140 140 140				115 115 115 120				125 125 125 130				260		(r6), glow wire ignition and reflow optimized, suitable for lasermarking, signalwhite RAL9003 (WT409), gray close RAL703 (GY162).																				
	HTN LTFR52G30NH	PA6T/66-GF30FR(40)	BL662	1.45	2.2 / 2.2	148 / 125	10500 / 10000	V-0				V-0 0.8 mm				V-0				-				-				-				-				-				-				-				-				600	140 140 140 140				115 115 120				125 125 130						laser transparent dark blue, black, reflow optimized.								
	HTN FR52G35NH	PA6T/66-GF33FR(40)	WT010 BK337	1.50 1.49	1.5 / - 1.4 / -	128 / - 135 / -	11700 / - 12800 / -	-				V-0				V-0				-				-				-				-				-				-				-				-				600	-				140 140 140				115 115 120				125 125 130						super high flow, reflow optimized, suitable for lasermarking, white (WT010).				
	HTN FR52G45NH	PA6T/66-GF45FR(40)	NC010 BK337	1.60 1.61	1.7 / - 1.8 / -	167 / - 174 / -	15500 / - 15700 / -	V-0				V-0				V-0				4 1 0 0				0 0 0 0				960 960 960 960				700 750 750 800				600	140 140 140 140				-				-				-				-				225		high flow, reflow optimized, suitable for lasermarking.																
HTN FR55G50NHLW	PA*-GF50FR(40)	BK046	1.65	1.6 / 1.3	200 / 176	18000 / 19100	V-0				V-0				V-0				-				-				-				-				-				-				-				-				600	65 65 65 65				65 65 65 65				65 65 65 65						super high flow, low warpage, high stiffness, gray (GY062).									

[Footnote Key]
 (1) ISO 1183
 (2) ISO 5271-1/2
 (3) ISO 5271-1/2
 (4) ISO 5271-2
 (5) IEC 60695-11-10
 (6) UL746A
 (7) IEC 60695-2-12
 (8) IEC 60695-2-13
 (9) IEC 60112
 (10) UL-746B
 (11) IEC 60695-10-2
 (12) UL-1446
 (a)Dry/ Cond



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