

The leading manufacturer of high-performance polyamides

EMS-GRIVC	JRY																								
			Mech	anical pr	operties	S				1	hermal	propertio	es			Ele	ectrical p	roperties		Ot	her properti	es			
						Cha	Che			tem	tem	Coeff	Coeff											<u> </u>	
				Charpy	Char	arpl note	arpy notet	Ball "	Nelling Welling	ip of delt	ip of delle		it. of lines	Max. usa	Max. usa	4		Surfa	ET Com		T.	30	And a		
	lensile 150	is mo	eress at t	Strain at	apact stre	mpact stre	ched (50) Ched (50)	idel (SC	otation (temperation (SC)	. \ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			The me	a temper	ie temper	De 105/54	6	ectric stret	Vale ob	Sim. of	Densin	ind of 29 AA, 2577	and shrinkage hormall (6)	
EMS-GRIVORY Via Innovativa 1 7013 Domat/Ems	7	modulus (MRd)	ess at break (Mea)	Strain at break (old)	oct strength (*23°C) (*	2005 strength (30°C) (40)	strength 1	mood the land land	tation hardness (MRO)	10°Clum/ 6°Cl	munder load 1.80 Mich	non under load (8:00 MRC)	mexpansion (parallel) (c)	exponsion 1	Eldure lon	rature Isho	, 163,511/11/11/11/11/11/11/11/11/11/11/11/11/	resistivity (Onm)	EC suengh IX mml	o nocking index []	Similar do sortation (9)	msin	age pard	age nom	
Switzerland Phone +41 81 632 78 88 . Fax +41 81 632		وَ الْحَادِينَ الْحَادِينَ الْحَادِينَ الْحَادِينَ الْحَادِينَ الْحَادِينَ الْحَادِينَ الْحَادِينَ ا	, ō		, S		*23°C	(30°C) [MRO		.80 Mg	3.00	Parallell	Mormal	T T T T	T term)	· · · · · · · · · · · · · · · · · · ·	2	mmj	dex			1 (o)	7 10 100	
www.emsgrivory.com . welcome@emsgrivory.com						P	3 \ t					Co.		EPIN)	WEP/KI	δ / ŝ	Ď. /								
Designation Grivory HT	Polymer				\																				
Grivory HT1V-5 FWA black 9225	PA6T/6I-GF50	dry cond	18000 1 <i>75</i> 00	250 240	2 2	80 80	80 80	11 11	10 10	340 340	325	285	210	15	40	140	250	10 ¹¹	1012	30 30 6	3	1.3	1650	0.1	0.5
Grivory HTV-5H1 black 9205	PA6T/6l-GF50	dry	18000 17500 18000	250 240 250	2 2	80 80 80	80 80 80	11	10 10	340 340 340	325	285	210	15	40	150	250	10 ¹¹ 10 ¹¹	1012		3	1.3	1650	0.1	0.5
Grivory HTV-5X1 black 9205 Grivory HT1V-5 HY black 9205	PA6T/6I-GF50 PA6T/6I-GF50	dry cond dry	1 <i>75</i> 00	240 250	2 2	80	80	11	10	340	325 325	285	210	15	40	140	250	1011	10 ¹²	30	3	1.3	1650 - 1650	0.1	0.5
Grivory XE 16125 black 9839	PA6T/6I-GF50	dry cond	17500 19500 19000	240 275 270	1.9	80 75 75	80 75 75	30 30	30 30	340 350 350	325	> 290	250	15	40	150	260	10 ¹¹ 10 ¹¹ 10 ¹¹	10 ¹²	35	- 3	1.3	1650	0.1	0.2
Grivory HT2V-5H	PA6T/66-GF50	dry	17500 17000	250 215	2 2	75 75	60	11	11	325 325	310	280	230	10	55	140	240	10 ¹⁰	1012	38	3.5	1.2	1620	0.1	0.7
Grivory HT2VZ-33H	PA6T/66-GF33	dry	11000	200	2.5	55 55	50 45	10	9 9	260 240	310	285	200	20	60	140	240	10 ¹⁰	1012		5	2	1440	0.1	0.9
Grivory HT2V-3H LF Grivory HT2V-3X V0 black 9021	PA6T/66-GF30	dry cond dry	11000 11000 10500	185 160 140	2 2	50 50 40	45 45 35	7	6	270 260 240	310	280	1 <i>7</i> 0	20	70 45	140	240	10 ¹⁰ 10 ¹⁰	1012	34	4.5	1.3	1430	0.2	0.8
Grivory HT2C-3X black 9833	PA6T/66-CF30	dry cond	10500 24500 24000	130 275 265	2 2 2	40 55 55	35 50 50	8 8	6 7 7	230 300 290	310	290	245	15	75	140	240	10 ¹⁰ 50 50	100	34 6	- 4.5	1.5	1320	0.1	0.9
Grivory HT2C-3X LF black 9833	PA6T/66-CF30	dry	24000 24000 24000	240 210	1.5	40 40	40 40	7 7	5 5	290 260	310	280	210	10	70	140	240	50 50	100	3 3	4.3	1.5	1400	0.1	0.3
Grivory XE 4216 black 9233	PA6T/66+X-GF30	dry	11000 9600	190 150	2.7 2.7	55 65 no break	45 45 80	9 9	7 7	260 210	300	240	155	20	80	150	250	10 ¹⁰	1012		5.4	2.1	1430	0.2	0.9
Grivory HT3Z IE black 9564	PA10T/X	dry cond dry	2600 2600 2700	60 60 80	11	no break	50 95	12	12 12 6	140 140	295 295	115	85	80	80	140	240	10 ¹⁰ 10 ¹⁰	1011	33	2.6	1.5	1190	1.8	1.8
Grivory HT3Z LF black 9564 Grivory XE 4027 black 9916	PA10T/X-GF30	dry cond	2800 10000 10000	75 130 130	2 2	95 50 50	90 50 50	6 8 8	6 7 7	140 235 235	295	260	155	20	70	150	-	10 ¹⁰ 10 ⁹ 10 ⁹	1011	33	2.3	0.9	1410	0.3	1.2
Grivory XE 4120 black 9916	PA10T/X-GF30	dry	11500 11500	150 145	2 2	55 50	45 45	8 8	6	255 255	315	280	160	20	55	150	250	10 ¹⁰ 10 ¹⁰	1011	33	2.2	1.1	1430	0.2	0.8
Grivory XE 4095 black 9225	PA10T/X-GF50	dry	17000 16500	220 200	2 2	80 70	75 70	11	10	280 280	295	270	240	15	60	150	260	10 ¹⁰ 10 ¹⁰	1011	32 31 6	1.7	0.8	1580	0.2	0.7
Grivory XE 4202 black 9564	PA1OT/X	dry cond	1300 1300	35 35	20 20	no break	no break	60	40 40	-	265	75	-	-	-	-	-	-	-	-	- 2.8		-	-	-
Grivory GV	DA 4.4 - DA 41 /V CE 40	dry	31000	260	1.5	55	45	7	4	280	240	225	175	10	00	100 100	220	50		-	- 4.5	1.4	1340	0.1	0.0
Grivory GCL-3H anthracite	PA66+PA6I/X-CF40 PA66+PA6I/X-CF30	dry cond dry	28000 22500 21500	225 315 270	1.6	55 60 55 65	50 55 65	7 16 16	20 20	280 260 320 285	260	235 255	175 240	10	80 25	100 - 120	220	50 50 30 30	50	50	- 4.5 - 4.7	1.4	1280	0.1	0.2
Grivory GM-4H	PA66+PA6I/X-MD4C	cond dry cond	7000 6000	100	3 5	80	75 90	6 6	4 4	225 200	260	105	60	90	90	100 - 120	220	10 ¹² 10 ¹²	1013	26 26 6	- 4.5	1.4	1450	0.8	0.8
Grivory GV-2H	PA66+PA6I/X-GF20	cond	8200 7200	145 125	3 4	50 50	35 35	7 7	6	225 200	260	230	65	10	100	100 - 120	220	10 ¹² 10 ¹²	1013		- 75 5	1.5	1280	0.1	0.8
Grivory GV-4H	PA66+PA6I/X-GF40	cona	14000 13000 18000	230 210 250	2.5	90 90 90	70 70 80	13	11	255 230 280	260	235	145	15	90	100 - 120	220	10 ¹² 10 ¹²	1013	33	4.5	1.4	1470	0.1	0.6
Grivory GV-5 FWA black 9225 Grivory GV-5H	PA66+PA6I/X-GF50 PA66+PA6I/X-GF50	cond dry	1 <i>7</i> 000 18000	220 250	2.5	90	80	15 15	13	255 280 255	260	235	165	15	90	100 - 120	220	10 ¹²	10 ¹³	33 6	- 4	1.4	1560	0.1	0.4
Grivory GV-5HL black 9914	PA66+PA6I/X-GF50	cona	17000 17000 16000	220 220 200	2.5	90 70 60	50 40	15 14 13	13 15 14	270 250	255	230	170	15	70	100 - 120	220	10 ¹² 10 ¹² 10 ¹²	1013	29	- 4	1.4	1600	0.1	0.5
Grivory GV-6H	PA66+PA6I/X-GF60	dry	22000 21000	260 240	2 2	80 80	80 80	14	13 13	315 290	260	235	175	15	90	100 - 120	220	10 ¹² 10 ¹²	1013		3.5	1.2	1690	0.1	0.3
Grivory GVL-4H black 9915	PA66+PA6I/X-GF40	CONG	14500 13500 18000	230 200 260	2.3 2.4 2.2	80 75 95	70 70 80	25 25 30	25 25 30	265 250 290	260	250	210	20	60	100 - 120	220	10 ¹⁰ 10 ¹⁰	1013	33 33 6	4.5	1.4	1470	0.1	0.4
Grivory GVL-5H black 9915 Grivory GVL-6H black 9915	PA66+PA6I/X-GF50 PA66+PA6I/X-GF60	cond dry	17000 23000 21500	230 290 250	2.2	90 105 100	80 85 85	30 35 35	30 35 35	270 315 290	260	255 255	220	20	50 40	100 - 120	220	10 ¹⁰ 10 ¹⁰ 10 ¹⁰	10 ¹³	33 6	3.5	1.3	1690	0.1	0.3
Grivory GVN-35H black 9915	PA66+PA6I/X-GF35	dry cond	10500 9000	170 140	4 5	85 85	80 80	15 15	13	215 185	260	235	70	15	90	100 - 120	220	10 ¹² 10 ¹²	1013	35	- - -75 4.5	1.5	1400	0.1	0.5
Grivory GVX-5H black 9915	PA66+PA6I/X-GF50	cond	18000 17000	250 220	2.5 2.5	80 75	65 60	15 15	15 15	290 265	260	245	175	20	50	100 - 120	220	10 ¹⁰	1012		00 4	1.4	1560	0.1	0.3
Grivory GVX-65H black 9915	PA66+PA6I/X-GF65 PA66+PA6I/X-GF70	dry cond dry	25500 25000 28000	300 280 290	1.9 1.9	75 70 60	70 70 60	15 15	15 15 15	345 330 370	260	250	215	15	50	100 - 120	220	10 ¹⁰ 10 ¹⁰	10 ¹²	33	3.2	1.1	1 <i>77</i> 0 - 1850	0.1	0.2
Grivory GVX-7H black 9915	PAOO+PAOI/ A-GF/ U	cond	27500	260	1.5	60	60	15	15	360	260	250	220	10	30	100 - 120	220	1010	1012	33 6	2.9	ı	-	0.1	0.2
Grilamid TR Grilamid TR 30 nat	PA6I/X	dry cond	2900	105*	>50	-	-	-	-	-	-	125	-	60	60	80 - 100	120	-	1012	- 07	- 7	2	1150	0.7	0.7
Grilamid TR 55	PA12/MACMI	dry cond	2800 2200 2200	90* 75* 75*	>50 >50 >50	no break no break	no break no break no break	7 8	12 7 7	160 - 120	-	130	-	80	80	80 - 100	120	10 ¹¹	1012	-	3.5	1.5	1060	0.6	0.7
Grilamid TR 55 LX	PA12/MACMI	dry cond	2000 1900	75* 70*	>50 >50	no break	no break	9	- 8	110	-	80	-	90	90	80	95	1011	1012	-	2.5	1	1040	0.5	0.6
Grilamid TR 90	PAMACM12	dry cond dry	1600 1600	60* 60*	>50 >50 >50	no break no break	no break no break	9 13 -	9 12 -	90	-	115	-	90	90	80 - 100	120	1011	1012	34 6	3	1.5	1000	0.7	0.8
Grilamid TR 90 UV Grilamid TR XE 4139 black 9231	PAMACM12	cond	1600 2800	60*	>50 25	no break	no break	10	9	160	-	115	-	90	90	-	-	1011	10 ¹²	31 6 27	- 9	3.5	1150	0.7	0.8
Grilamid TRVX-50X9 black 9230	PAMACM12-GF50	dry cond	2800 - 12500	95*	>50 - 2	no break - 65	no break - 60	12 - 16	12 - 15	160 - 190	-	115	105	20	80	80 - 110	120	10 ¹¹ - 10 ¹¹	1012	-	- 1	0.3	1500	0.1	0.1
Grilamid				* Stress at y	ield																				
Grilamid 2SV-30H black 9992	PA610-GF30	dry cond	9000 7000	155 120	4 6	95 95	90 90	18 16	11 11	180 120	222	200	120	25	80	100 - 110	160	10° 10°	1011	45 45 6	00 4	1	1310	0.2	0.8
Grilamid L 20 G	PA12	dry	1600 1100 8000	45 40 130	>50 >50	no break no break	no break no break	5 7	6 6	75 70	178	45	-	120	140	-	-	1011	1012	32 6	1.5	0.7	1010	0.8	0.8
Grilamid LBV-30H FWA black 922 Grilamid LCL-3H anthracite	5 PA12-GF30 PA12-CF30	dry cond dry	7500	120	6	90	90	15	10	155	178	1 <i>5</i> 5	90	20	100 50	90 - 120	150	1010	50		- 1.1	0.6	1150	0.1	0.5
Grilamid LV-30H FWA black 9225		dry cond	19000 6500 6000	250 120 105	1.7 6 8	70 90 80	90	28 19 20	15 15	135	178	160	90	20	150	90 - 120	150	100 - 10 ¹¹	1012	- 35 6	- 1.1	0.6	1220	0.1	0.7
Grilamid LV-3H	PA12-GF30	dry cond	6500 6000	120 105	6 8	90 80	90 80	19 20	15 15	-	1 <i>7</i> 8	160	90	20	150	-	-	1011	1012	-	. 1.1	0.6	1220	0.1	0.8
Grilamid LV-50H FWA black 9225		dry cond dry	12000 11500 12000	155 135 155	5 6	90 80 90	90 80 90	19 20	15 15 15	155	178	165	125	15	120	90 - 120	150	1011	1012	35 6	0.8	0.4	1470	0.1	0.5
Grilamid LV-5H Grilamid LV-65H FWA black 9225	PA12-GF50 PA12-GF65	cond	11500	135 170	6	80	80	20	15 -	155	178	165 170	125	15	120	90 - 120	150	1011	10 ¹²	-	0.8	0.4	1650	0.1	0.5
Grilamid LVX-65H SST black 9288		dry cond	17000 19000 17000	160 200 185	3.5 2.5 2.5	60 85 85	60 80 80	15 20 20	15 20 20	185 210 190	178	175	160	10	70	90 - 120	150	10 ¹¹	1012	35	0.8	0.4	1700	0.1	0.3
Grilon TS																									
Grilon TS VO	PA666	dry cond	3600 1600	75 50	10 >50	75 100	70 -	4 15	3 3	-	260	70	-	70	90	100 - 120	200	10 ¹¹ 10 ⁹	1010	28 26 6	00 8	2.5	1160	0.7	0.8
Grilon TSC-20/4 EC black 9832	PA666-CF20	dry	16000 10000	230 160	3 6	65 90	60 60	8 15	5 5		260	240	185	20	90	90 - 120	200	10 ⁵ 10 ⁵	106	-	5	1.5	1220	0.1	0.3
Grilon TSC-40/4 EC black 9832 Grilon TSG-15/4	PA666-GF15	dry cond dry	26000 17000 6000	260 200 120	4 3	60 85 40	50 50	16	7	190 110	260 260	240	185	30	70 80	90 - 120	200	100	100	-	- 5 - 4	2.5	1310	0.1	0.2
Grilon TSG-30/4 Grilon TSG-30/4	PA666-GF30	cond dry cond	4500 9700 6000	85 190 125	5 3 o	60 70 80	60	11 10 12	- 7 6	90 210 110	260	235	155	20	70	100 - 120	220	10 ¹²	1012	25 21 4	- 6 - 5	2.5	1350	0.2	0.8
Grilon TSG-30/4 LF 15	PA666-(GF+Z)45	dry cond	6500 3000	100 70	4 8	40 50	30 30	4 8	3 3		260	190	70	30	100	90 - 110	220		-		- - - 5	2	1460	0.4	0.8
Grilon TSG-30/4 V0	PA666-GF30 FR	dry	10500 6500	150 90	2.5 4.5	65 70	60 60	9.5	9 8.5	255 130	260	235	165	-	-	100 - 120	220	10 ¹⁰ 10 ¹⁰	1010		- 4	1.5	1440	0.2	0.7
Grilon TSG-50/4 Grilon TSGI 40/4 black 9833	PA666-GF50 PA666-GF40	dry cond dry	17500 12500 13500	250 170 220	2.5 4.5 2.1	80 85 75	70 80 60	14 20 25	12 12 25 30	280 160 280 185	260 260	250 250	200	15	90	90 - 120	220	10 ¹² 10 ¹¹ 10 ¹⁰	1012	27	5 5	1.5	1550 - 1450	0.1	0.3
Grilon TSGL-40/4 black 9833 Grilon TSGL-50/4 black 9833	PA666-GF50	cond dry cond	10000 17800 12800	160 255 180	2.5	80 95 100	55 85 80	30 35 40	30 35 40	185 315 205	260	255	225	20	50	120 - 130 120 - 130	220	10 ¹⁰	1012	22 5	5 - - - - - - - - - - - - - - - - - - -	1.8	1550	0.1	0.4
Grilon TSGL-60/4 black 9833	PA666-GF60	dry cond	22500 1 <i>7</i> 000	275 200	2 2.2	100 110	95 90	35 40	35 40	350 240	260	255	235	20	40	120 - 130	220	10 ¹¹ 10 ¹⁰	1012	27 22 5	- 4	1.2	1680	0.1	0.2
Grilon TSS/4	PA666	dry cond	3000 1100 3300	55 - 70	15 >50	no break	no break no break	5 40 4	6 5	145 65	260	65	-	70	80	90 - 110	220	10 ¹² 10 ¹¹	1012		- 8	2.5	1130	1.2	1.4
Grilon TSS/4 LF 2	PA666	cond	3300 1400	-	>50	no break no break	no break	8	4 4	140 65	260	85	65	80	90	80 - 100	220	10 ¹² 10 ¹⁰	1011	27 25 4	75 5	2	1160	0.9	1
	nany CHEMIE (Deutschland) Vert weg 14	triebs Gmb		nce -CHEMIE (Fra Avenue Roge		EM	eat Britain S-CHEMIE (UK) l fin House, Priestl		Italy EMS-CH Via Carlo	IEMIE (Italia) S.r. oni 56	I. EA	hina AS-CHEMIE (C 27 Songbei Ro			CHEMIE (Suzh Songbei Road			MIE (Taiwan) Ltd. g Fu South Road		EMIE (Korea) Ltd. posan Venturedigm,	Japan EMS-CHEMIE EMS Building	(Japan) Ltd.	EMS-CH	d States of A HEMIE (North A Corporate Way	America) Inc.

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