



## Polyram Selected Compounds Portfolio



## Thermoplastic Compounds - Products

### PLUSTEK / POLYRAMID

PA66, PA6, PA12, PPA,  
PA610, PA1010

### RAMSTER

PBT, PET

### RAMTOUGH

PC

### RAMTAL

POM

### RAMOFIN / KARIEN-P

PP, PE

### KARILEN-E

TPS (TPE-S)

### POLYTRON®

LGF PP & PA

### RAMSHINE

ABS, ASA, PS, SAN

### RAMLLOY

PBT/ASA, ASA/ABS,  
PA/ABS, PBT/ABS,  
PC/PBT, PC/ABS, PA/PE,  
PA/PP, PPE/PS, PPE/PA

### RAMTON

PPS

### RAMOTAN

TPU

### RAMDETECT

Metal Detectable  
Compounds & MB

### RAM3D

Compounds for FGF 3D  
Printing

## Enhanced with a wide variety of additives and reinforcements

- Reinforcement (SGS, LGF, GB, CF, LCF)
- Mineral Fillers
- Flame Retardants
- Modifiers
- Heat Stabilizers
- UV Stabilizers
- Lubricants
- Color
- Hydrolysis Resistant
- Wear Resistant
- Electrical Conductive
- Detectable
- Plasticizers
- Laser Marking



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## POLYTRON® – Long Glass Fiber Compounds: PP, PA6, PA66

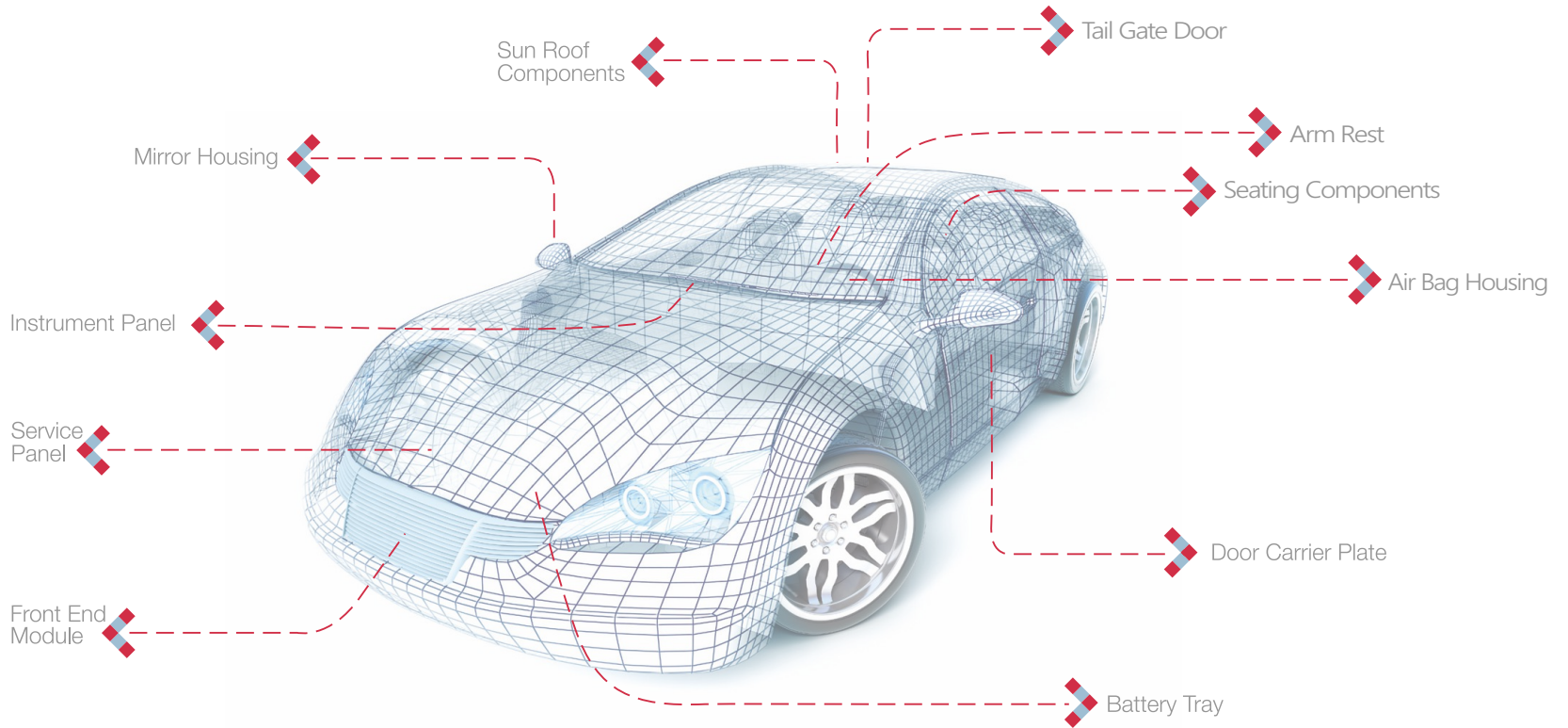
			20% LGF	30% LGF	30% LGF, Copolymer	40% LGF	50% LGF	60% LGF
Property	ISO	Unit	POLYTRON® P20B01	POLYTRON® P30B01	POLYTRON® P30B03	POLYTRON® P40B01	POLYTRON® P50B01	POLYTRON® P60B08-S*
Density	ISO 1183	g/cm³	1.03	1.11	1.11	1.22	1.33	1.46
Mold Shrinkage Flow	ISO 1183	%	0.1-0.2	0.1-0.2	0.1-0.2	0.1-0.15	0.1	0.1
Mold Shrinkage X-Flow	ISO 1183	%	0.4-0.5	0.35-0.45	0.35-0.45	0.25-0.3	0.2	0.1-0.15
Tensile Modulus	527	MPa	5300	7000	6200	10000	12500	15500
Tensile Strength	527	MPa	95	110	90	125	135	135
Elongation at Break	527	%	2.5	2.2	2.4	2	1.8	1.4
Flexural Modulus	178	MPa	5000	6600	6000	9000	12000	15000
Flexural Strength	178	MPa	140	155	135	190	220	200
Un Notched Charpy Impact	179	kJ/m²	40	50	55	65	65	60
Un Notched Charpy Impact@ - 30C	179	kJ/m²	35	40	65	50	50	50
HDT	75	C	155	155	150	157	157	158

\* Dilution grade

All grades are available in a **Low Emission** version.

All grades are available in various levels of heat stabilization, comply with any automotive OEM's standards.

# POLYTRON® - Long Glass Fiber Compounds: PP, PA6, PA66



## RAMOFIN & KARILEN-P - Polypropylene Compounds

			PP 20% Talc	PP 20% Talc *	PP 30% GF, NSF, FDA	PP 30% GF, UV Black *	PP 30% GF**	PP UV, 40% GF, HS	PP HFFR V2@0.8mm Super Light
Property	ISO	Unit	Karilen-P H 5420 TH	Karilen-P RH 5420 THU	RAMOFIN PPH301G6	RAMOFIN+ RPPH304G6	RAMOFIN+ PPH300G6	RAMOFIN PPH308G8	RAMOFIN PPC502
Density	ISO 1183	g/cm <sup>3</sup>	1.06	1.05	1.11	1.13	1.12	1.22	0.9
Tensile Modulus	527	MPa	2700	3200	6550	6650	6600	8400	1250
Tensile Strength	527	MPa	33	34	92	72	95	90	25
Elongation	527	%	8	4	3.3	2.6	3.3	3.8	5.6
Notched Izod Impact	180	kJ/m <sup>2</sup>	3	3	14	8.5	12.5	17	5.3

\* Industrial Quality

\*\* Partially bio based



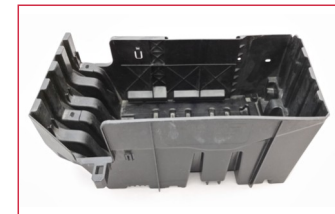
**RAMOFIN PP, GF,  
Heat Stabilized**



**RAMOFIN PP, FR**



**RAMOFIN PP, GF,  
WRAS Approved**



**RAMOFIN PP, GF, UV,  
Heat Stabilized**

## RAMSTER – Polybutylene Terephthalate Compounds

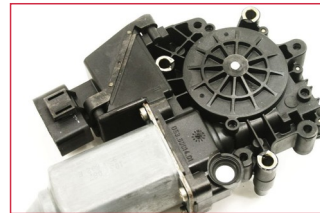
			PBT Unfilled	PBT IM	PBT 30% GF	PBT 30% GF, FR VO@0.8mm	PBT/PET 30% GF, UV	PBT/PET 30%GF Industrial
Property	ISO	Unit	RAMSTER PF201	RAMSTER PF811	RAMSTER PF300G6	RAMSTER PF321G6	RAMSTER PF310G6	RAMSTER+ RF334G6
Density	ISO 1183	g/cm <sup>3</sup>	1.31	1.22	1.52	1.67	1.65	1.52
Tensile Modulus	527	MPa	2600	1550	9800	10600	10500	10500
Tensile Strength	527	MPa	60	35	135	135	135	115
Elongation	527	%	14	4.5	2.6	2.4	2.4	2
Notched Izod Impact	180	kJ/m <sup>2</sup>	4	60	12	10	10	7.5



RAMSTER PBT, GF



RAMSTER PBT/PET, GF, UV, Impact



RAMSTER PBT, GF



RAMSTER PBT, GF, Impact, Hydrolysis, Hi Flow

## PLUSTEK & POLYRAMID - Polyamide 66 Compounds

			PA66 Unfilled, FDA	PA66 Super Tough	PA Partially Aromatic 50% GF	PA66 30% GF	PA66 NSF 35% GF, UV, Burst Toughened	PA66 30%GF, Industrial
Property	ISO	Unit	PLUSTEK PA100	PLUSTEK PA860	PAT302G50	PLUSTEK PA301G6	PLUSTEK PA7001G7	POLYRAMID BRV35
Density	ISO 1183	g/cm <sup>3</sup>	1.14	1.06	157	1.36	1.41	1.37
Tensile Modulus	527	MPa	3250	1600	18,150	10000	11000	8700
Tensile Strength	527	MPa	85	85	252	180	200	145
Elongation	527	%	4.5	20	2.5	2.8	2.7	2.5
Notched Izod Impact	180	kJ/m <sup>2</sup>	5	90	17	10	12	7.8



PLUSTEK PA66, GF, UV



PLUSTEK PA66, GF, Impact, Heat Stabilized



PLUSTEK PA66, GF, Hydrolysis Resistant



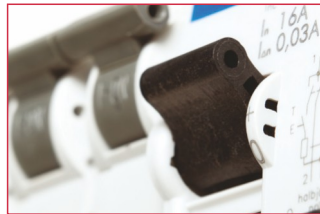
PLUSTEK PA66, Impact, Laser Printable

## PLUSTEK - Polyamide 6 Compounds

			PA6 Unfilled	PA6 IM	PA6 FR V0@0,8mm	PA6 15% GF IM	PA6 30% GB	PA6 35% GF UV Industrial
Property	ISO	Unit	PLUSTEK PB145	PLUSTEK PB845	PLUSTEK PB507	PLUSTEK PB826G3	PLUSTEK PB340S6	POLYRAMID BRV35
Density	ISO 1183	g/cm <sup>3</sup>	1.13	1.09	1.17	1.17	1.35	1.37
Tensile Modulus	527	MPa	3500	2200	3430	4600	4300	8500
Tensile Strength	527	Mpa	87	56	70	90	65	155
Elongation	527	%	3.8	4	3.5	3.4	5.2	2.5
Notched Izod Impact	180	kJ/m <sup>2</sup>	3.8	60	3.8	20	3.8	7



PLUSTEK PA6, GF,  
Impact Modified



PLUSTEK PA6, FR



PLUSTEK PA6, GF, Low Water  
Absorption, UV, Resistance to High  
Pressure



PLUSTEK PA6, High  
Impact  
in Low Temperature



## RAMTAL – Polyacetal Compounds

			POM Unfilled, UV	POM 30% GF	POM IM	POM Lubricated 20% PTFE	POM Lubricated MoS2	POM Homopolymer, Lubricated, UV
Property	ISO	Unit	RAMTAL PM7009	RAMTAL PM3007G6	RAMTAL PM8515	RAMTAL PM1409	RAMTAL PM1609	RAMTAL PMH4501
Density	ISO 1183	g/cm <sup>3</sup>	1.41	1.61	1.37	1.52	1.44	1.41
Tensile Modulus	527	MPa	2900	10000	1400	4200	2500	2700
Tensile Strength	527	MPa	64	120	40	50	60	60
Elongation	527	%	8.5	2	15	50	50	17
Notched Izod Impact	180	kJ/m <sup>2</sup>	7.5	9	13	4.6	5.5	7.5



**RAMTAL POM,  
Impact Modified**



**RAMTAL POM, UV  
Stabilized**



**RAMTAL POM, GF**



**RAMTAL POM, Impact  
Modified, UV**

## RAMLLOY – Customized Polymer Alloy Compounds

			PC/PBT	PBT/ASA 30% GF	PA/PE 30% GB, IM, UV	PA/ABS UV, IM	PPE/PA IM Electrical Conductive	PPE/PA 20% GF
Property	ISO	Unit	RAMLLOY PZF101	RAMLLOY PFS301G6	RAMLLOY B780S6	RAMLLOY PVB702	<b>RAMLLOY</b> PNA800	RAMLLOY PNS302G4
Density	ISO 1183	g/cm <sup>3</sup>	1.23	1.47	1.29	1.04	1.09	1.2
Tensile Modulus	527	MPa	2000	9700	2650	1800	2400	7000
Tensile Strength	527	MPa	50	125	52	40	58	105
Elongation	527	%	4.2	2.4	4.1	3.3	6	2.4
Notched Izod Impact	180	kJ/m <sup>2</sup>	50	4.1	25	60	22	12



RAMLLOY PBT/ASA, PC/ABS, GF



RAMLLOY PBT/PC




RAMLLOY PPE/PA IM Electrical  
Conductive BK



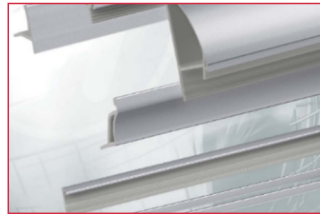
RAMLLOY PC/ABS UV, Hi Flow

## KARILEN-E - TPS Customized compounds

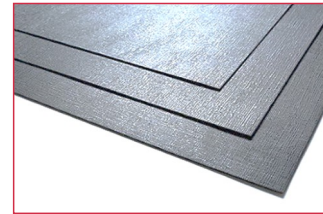
			TPS Overmoulding	TPS Cost optimized filled	TPS high heat stability, UV & Ozon resistant	TPS FR free of PBE	 TPS (Industrial Quality)
Property	ISO	Unit	Karilen-E 23 A-H201	Karilen-E 75 A-B251	Karilen-E 55 A-H262	Karilen-E 50 D-G101 FR11	Karilen-E R 42 D-H202
Shore Hardness	ISO 48-4	-	23A	75A	55A	50D	42D
Tensile Strength	ISO 37	MPa	2.8	5.8	6	19	16



**KARILENE-E 75A**



**KARILENE-E 75A**



**KARILENE-E 50-55A**