



Consistently **delivering value**

Materials for Rotational Moulding

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POLYETHYLENE POWDER

GENERAL PURPOSE GRADES

These are our best selling and most widely used grades. These grades can be used in thousands of applications including litter bins, automotive parts, small agricultural tanks, flower pots/planters and furniture for both interior and exterior use.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL & COLOURS	N-109	5.0	0.935	Good mouldability and impact strength	MORE DETAIL
	N-250	7.0	0.935	Best selling general purpose grade WRAS approved	MORE DETAIL
	N-262	8.0	0.934	Metallocene hexene high flow	MORE DETAIL
	N-461	9.0	0.935	Highest flow grade High performance grade	MORE DETAIL
BLACK	M-638	7.0	0.935	WRAS approved	MORE DETAIL
	M-505	4.0 -8.0	0.930-0.940	Wide specification black powder	MORE DETAIL



TANK GRADES

We have a range of tank grade materials which meet the technical and economic challenges of a wide variety of tank applications from automotive diesel tanks to large water, chemical and oil storage tanks.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL	N-307	3.5	0.939	Hexene, UV10, WRAS approved	MORE DETAIL
	N-259	3.2	0.939	Butene tank grade	MORE DETAIL
	N-459	3.5	0.940	Butene tank grade, high stiffness, excellent impact strength and fully UV stabilised.	MORE DETAIL
	N-269	4.0	0.940	Metallocene, hexene TUV approved	MORE DETAIL
	N-323	3.0	0.943	High stiffness hexene	MORE DETAIL
BLACK	M-762	3.5	0.939	Black butene tank grade	MORE DETAIL
	M-748	4.0	0.939	Hexene, TUV approved	MORE DETAIL
	M-783	4.0	0.940	Metallocene, hexene TUV approved, UV15 stabilised	MORE DETAIL

HIGH STIFFNESS, HIGH FLOW GRADE

This grade has been designed specifically for applications which require high flow and high stiffness combined with good physical properties.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL AND BLACK	M-736	6.0	0.939	Superior mouldability, good surface detail, stiffness and toughness	MORE DETAIL

INDUSTRIAL GRADES

These grades have outstanding physical characteristics such as toughness and environmental stress crack resistance. They are used in demanding applications such as large chemical storage containers, off shore flotation buoys and road crash barriers.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL & COLOURS	N-332	3.2	0.920	Hexene, low warpage, very high impact, ESCR	MORE DETAIL
	N-132	6.0	0.921	Octene, excellent ESCR	
	N-265	3.0	0.935	Hexene, high impact, ESCR and chemical resistance	MORE DETAIL
	N-270	4.0	0.936	Butene, good impact strength, medium stiffness and good mouldability	MORE DETAIL
	N-324	4.5	0.938	Hexene, designed for larger products such as tanks. Good flow characteristics with a high level of stiffness.	MORE DETAIL

SUPER-LINEAR™ GRADES

Matrix were the first company to develop and market Super-linear™ type materials in Europe. They are the most widely used in the manufacture of kayaks, canoes and sailing boats where the combined benefits of high stiffness/rigidity and scratch resistance with very good impact strength and toughness make this material the ideal choice. Super-linear™ grades can also be used for automotive components which need to be light weight, stiff and tough.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL & COLOURS	N-131	3.5	0.945	The first Super-linear™ grade. Exceptional stiffness and toughness	MORE DETAIL
	M-601	3.5	0.949	The most popular Super-linear™ used in kayaks and canoes	MORE DETAIL
	M-760	3.3	0.952	Our latest and stiffest Super-linear™ grade	MORE DETAIL

FLEXIBLE GRADES

Matrix supplies a range of plastomer powders and an EVA product which all exhibit very good low temperature impact strength and flexibility. These materials are widely used for traffic barriers and bollards and marine applications such as fenders where elastic recovery is essential.

MATERIAL TYPE	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
PLASTOMER GRADES NATURAL & COLOURS	M-687	30	0.882	Very high flexibility (Flex Mod 71) UV stabilised	MORE DETAIL
	N-228	10	0.902	Good flexibility (Flex Mod 160) UV stabilised	MORE DETAIL
	N-266	30	0.902	Good flexibility with very high flow. UV stabilised	MORE DETAIL
EVA NATURAL & COLOURS	N-125	20	N/A	20% VA content, flexible EVA	MORE DETAIL



SPECIALITY POLYETHYLENE POWDER

CROSSLINK PE

Crosslink polyethylene material has outstanding impact and ESCR properties, very high flow and stiffness. This material is TUV approved. Typical applications for Crosslink include diesel fuel tanks, chemical storage tanks and other applications which require outstanding physical properties.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL & COLOURED	XL400	N/A	0.945	Outstanding impact and ESCR properties. Made in Europe by Matrix. TUV approvals	MORE DETAIL
BLACK	XL400 BLACK	N/A	0.955	Outstanding impact and ESCR properties. Made in Europe by Matrix. TUV approvals	MORE DETAIL

FLAME RETARDANT PE POWDER

Our flame retardant material is certified to UL94-V2. Typical applications include litter bins, products for the transport industry and indoor products requiring flame retardancy.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL, BLACK AND COLOURS	M-649	7.0	1.029	Hexene based LLDPE resin with UL92-V2 flame retardant rating	MORE DETAIL

CONDUCTIVE PE POWDER – BLACK

Conductive materials stop the build up of static charge and prevent sparks which may cause an explosion. This material is used for containers and conveyors of dust and powder where static explosions are a significant risk. It is also used in mining and ammunitions applications. We also supply a food approved grade.

MATERIAL TYPE	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
CONDUCTIVE POWDER	M-574	7	0.935	Medium/fast cycling medium density polyethylene	MORE DETAIL
FOOD APPROVED CONDUCTIVE POWDER	M-716	7	0.935	With FDA food contact approval	MORE DETAIL



FOAM (PE)

Our technical department has developed several different foam grades for a wide range of applications. These include soft foam for increased flexibility, a non stick foam and a hyper expansion foam which can replace polyurethane. We are also happy to work with you to develop a customised foam grade if you have a specific application. These materials are used in the manufacture of sailing boats where stiffness and lighter weight are needed and 2-3 shots may be required. They can also be used for applications requiring thermal insulation and acoustic dampening. *Densities are measured after foaming.

MATERIAL TYPE	GRADE	MELT FLOW INDEX – MFI	DENSITY*	PRODUCT DESCRIPTION	DATASHEET
HYPER EXPANSION (8-9X)	M-794	5.0	0.050	Easy processing hyper expansion foam. Suitable for single, double and triple shot	MORE DETAIL
HIGHER EXPANSION (6X)	M-594	5.0	0.150	Typically used for insulated containers	MORE DETAIL
ULTRA STIFF FOAM (4X)	M-56	3.0	0.230	Used for sailing boats to provide maximum stiffness for minimum weight	MORE DETAIL
STANDARD FOAM (4-5X)	M-532	5.0	0.230	Our main general purpose foam grade.	MORE DETAIL
NON STICK FOAM (4-5X)	M-742	5.0	0.230	Non stick foam	MORE DETAIL
SOFT FLEXIBLE FOAM	M-644	10.0	0.230	Designed to give a soft flexible foam. For use in single, double and triple layer applications	

ROTO LINING (PE)

This material can be used for permanent lining of steel containers (rotolining) to enhance chemical resistance.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL	N-211	5	0.921	Very high chemical resistance	MORE DETAIL

ANTI STATIC PE POWDER

This is a fast cycling LMDPE with a wide processing window, good mouldability and superb natural colour. The material has been modified to include anti static properties and is fully UV stabilised.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL, BLACK & COLOURS	M-711	7	0.935	General purpose grade with anti static additive	MORE DETAIL

OTHER POLYMER POWDER

POLYAMIDE (NYLON) 11 & 12

Matrix have long been the exclusive European outlet for Arkema's Rilsan PA 11 & 12 rotomoulding grades. These grades are easy to rotomould and do not require complicated processes such as inert air injection into the mould like Polyamide (Nylon) 6. The key performance advantages of Rilsan PA 11 & 12 are their extremely good permeation resistance to oils and fuels. They can also be used in high temperature applications notably for 'under bonnet' automotive components such as hydraulic oil tanks.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL & BLACK	RILSAN PA11 (Roto 11)	N/A	1.05	High temperature applications and permeation resistance to oils. Easy to mould and can be painted	MORE DETAIL
	RILSAN PA12 (ARVO 950 TLD)	N/A	1.01	High temperature applications and permeation resistance to oils. Easy to mould and can be painted	MORE DETAIL

POLYAMIDE COMPOSITE SYSTEM

Explore™ CT PA12 was developed in house in response to a need for more impact strength in PA12 mouldings. It offers improved impact performance by combining PA12 with a modified polyolefin in a 2 layer moulding.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL & BLACK	Explore™ CT PA12	N/A	N/A	High impact composite with high permeation resistance to oils/fuels. Can be painted	MORE DETAIL

POLYAMIDE FLAME RETARDANT

This powder was developed specifically for applications requiring excellent fuel permeation properties combined with flame retardancy. This material has UL94 VO rating at 3mm wall thickness. This material is used in aeronautical applications.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL	RILSAN PA11 MB 3000	N/A	N/A	Excellent fuel permeation properties with very high flame retardancy	MORE DETAIL

POLYCARBONATE

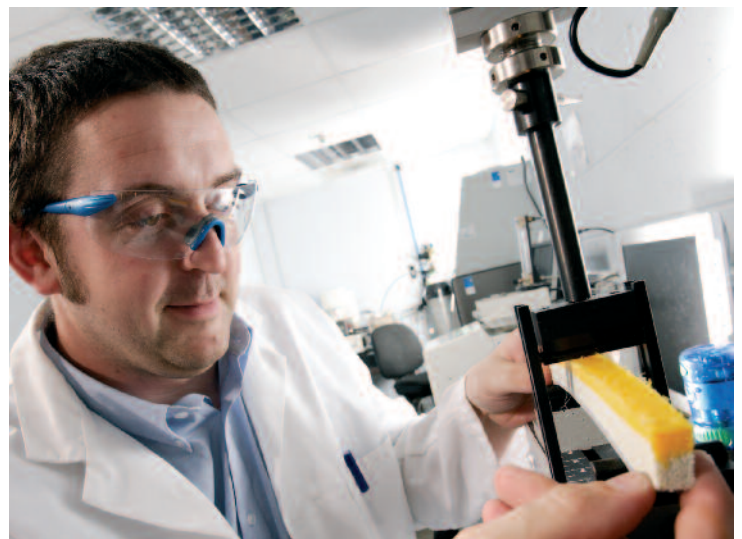
XP9003 and 9004 are rotomouldable polycarbonate grades. Their low viscosity makes them ideal grades for applications where aesthetic appeal is more important than impact strength. They will conform to UL94 V-2 flame retardancy and are very hard and rigid.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
CLEAR AND COLOURS	XP9003	23	N/A	Description as above	MORE DETAIL
	XP9004	7	N/A	Description as above	MORE DETAIL

POLYPROPYLENE

Polypropylene materials benefit from being stiff, hard and able to cope with higher temperatures than polyethylene. In rotomoulding however polypropylene has always suffered from extremely poor impact performance especially at lower temperatures. The S-Teq PP 35 developed by Matrix is an enhanced version of polypropylene and gives better toughness.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL, BLACK & COLOURS	PP 35	30	0.905	Standard polypropylene rotomoulding grade	MORE DETAIL
	S-Teq PP 35	30	0.902	Higher impact polypropylene rotomoulding grade	MORE DETAIL



POLYPROPYLENE COMPOSITE SYSTEM

Explore™ CT PP is a 2 layer rotomouldable composite material developed by our technical department. The system combines the beneficial properties of polypropylene with improved impact resistance. The material is easy to mould and resistant to high temperature.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL & COLOURS	Explore™ CT PP	N/A	N/A	Easy to mould and resistant to high temperature	MORE DETAIL

PVDF (KYNAR)

Kynar RG3200 is a custom designed rotomoulding grade made from Polyvinylidene Fluoride, a highly non reactive and pure thermoplastic material. It has outstanding chemical resistance, resistance to high temperature and low permeability. It is also flame retardant. Available as a natural, opaque powder. Widely used in the chemical, semi conductor, medical and defence industries.

COLOURS	GRADE	MELT FLOW INDEX – MFI	DENSITY	PRODUCT DESCRIPTION	DATASHEET
NATURAL	Kynar RG3200	N/A	1.78	Outstanding chemical resistance, resistance to high temperature and low permeability	MORE DETAIL

Ancillary products such as Clamps, Mold in graphics™ surface enhancers and adhesives and mould release products are available from our webshop www.matrixpolymers.com

The following products are all registered tradenames

Super-Linear™
Revolve™
Explore™
Turbo-Blend™
Designed for Roto™

The information contained in this brochure is given in good faith. The suitability for application and the performance of goods manufactured with materials processed and/or sold by Matrix Polymers is the sole responsibility of the end user. Product design, the production process and parameters of end use are factors that may affect the performance of the finished product and these and other factors are outside of Matrix Polymers' area of control.

COLOURS AND SPECIAL EFFECTS

We colour match with the assistance of state of the art Minolta Spectrophotometers in our technical centre and our production plants. Our colours are produced from raw pigments rather than bought in masterbatches. This allows us to fine tune during production and enables us to produce much finer colour tolerances. It also means we can control the pigments used. Rotational moulding is an aggressive process and we have undertaken extensive work to develop a palette of top quality pigments which have high levels of thermal stability and lightfastness.

We offer the following standard colours and special effects available from stock. If you require a specific colour we will colour match in house and produce a sample for you to approve.

	AVAILABLE FROM STOCK	
	COLOUR	REF
STANDARD COLOURS	WHITE	M2-044
	YELLOW	M2-1916
	BLUE	M2-2145
	RED	M2-346
	BOAT BLUE	M2-018D
MOTTLES & STONE EFFECTS	GREEN	M2-314
	LIGHT GRANITE	M2-396
	GREYSTONE	M2-719
	MOSS STONE	M2-816
	PORTLAND STONE	M2-822

ALSO AVAILABLE

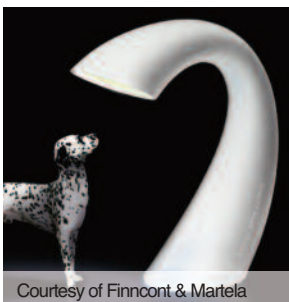
We also offer special effect materials. Please contact our sales team for more information.

Antique Effect
Glow in the Dark
Turbo- Blend™
Anti-Microbial
Wood Effect

CUSTOM GRADES

Different rotomolding applications can require different grades of material. We produce customised grades by compounding different materials and by altering the grinding specification as required. For example if you need a material that is very stiff but also flows well we can produce a high density grade with a high melt flow and can alter the grinding specification to enhance mouldability.

If you would like to know more about our customised products please [contact us](#).



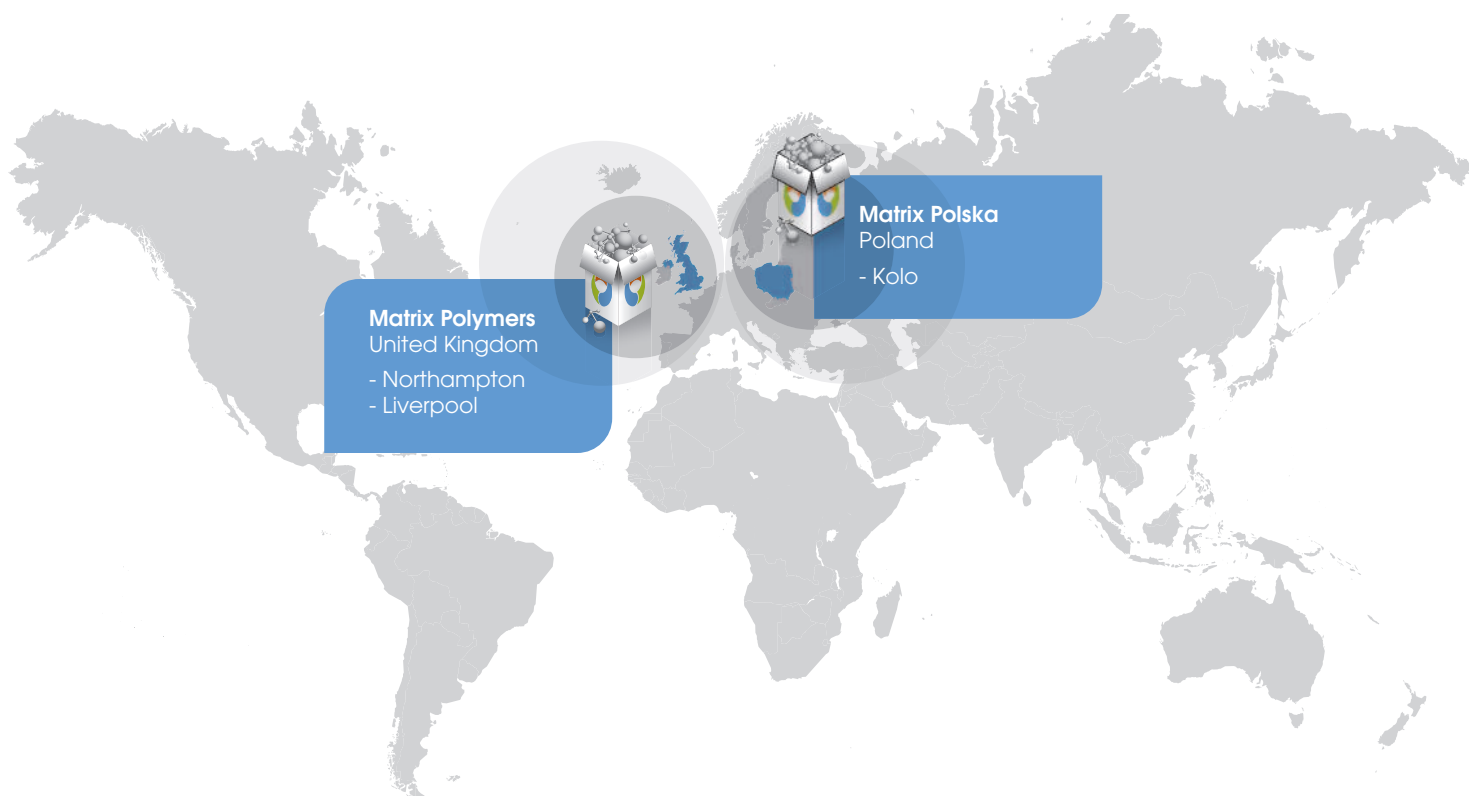
Courtesy of Finncont & Martela



Courtesy of Palm Equipment Europe



Courtesy of Cornaglia for Omar Ronda



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