



## SPECIAL PRODUCTS FOR

**PA**

**PET**

**PC**

# Index

WHO WE ARE ..... **Pag. 02**

PRODUCT RANGE ..... **Pag. 04**

CONTACT US ..... **Pag. 09**

# Who We Are

Greenchemicals S.r.l. is an Italian company highly specialized in flame retardant additives, with a particular focus on the development of halogen-free formulations and those with low environmental impact. Greenchemicals S.r.l. has always been considered a reliable global partner in the field of plastic additives.

Greenchemicals's products comply with REACH, CLP, SVHC, Food contact, ROHS requirements, if applicable.



## ABOUT GREENCHEMICALS

- Founded in 2010 by Micaela Lorenzi
- Based in Desio - ITALY
- Specialized in flame retardant formulations, it represents a worldwide reliable partner for **plastic additives**

## MAIN FIELDS OF APPLICATION:

- XPS, EPS, X-EPS
- XPE, XPU
- Engineering Thermoplastics
- Reactive flame retardants

## OTHER PRODUCTS:

- Antioxidants
- Uv
- Processing aids
- Color masterbatches

## GC - VISION

Developing and promoting performing solutions:

- Fire performance and thermal stability
- Superior Environmental and health profile (more sustainable with halogen free solutions)
- Compatibility with polymeric matrix
- Cost / Performance



## QUALITY MANAGEMENT SYSTEM

Greenchemicals decided to adopt Quality Management System (QMS) in compliance with ISO 9001 STANDARD to improve all activities associated with the quality.

In order to allow a better Family management, GreenChemicals, since the beginning, supports smart working, part time and flexible working time.



## GC - PHYSICAL FORMS

- Masterbatches
- Powder Blends
- Compacted Blends
- Cold Extruded Pellets
- Liquid Dispersions

In 2024 Greenchemicals acquires



## MEMBERSHIP:



FAMILY PRODUCT	NAME	POLYMER REF.	DESCRIPTION	EFFECTS	TECHNICAL DATAS
LUBRICANTS/ MOULD RELEASERS/ COUPLING AGENTS	<b>VALPOL GP-4350</b>	ALL ETP	VALPOL GP-4350 is an additive "General Purpose" suitable for all technopolymers, blends, highly filled compounds, including polymers which must be processed at high temperature.	It allows a reduction (35-40°C) in working temperatures, with advantages in the thermals life of the polymers (particularly POM, WPC Wood Plastic Composites, heat sensitive materials...). VALPOL GP-4350 acts as processing -aid, since avoids the extrusion problems that often occur especially when extruding polymers featuring un-homogeneous or "disordered" viscosities (in fiber extrusion induces to breakages).  Improves the intermeshing between different polymers (ABS/PC, PC/PBT, etc...). Improves the pigments, fillers and fibers dispersion. Promotes the melt flux junction, get better mould release effect, reduces the cycles time.	
LUBRICANTS/ MOULD RELEASERS/ COUPLING AGENTS	<b>VERSAPOL GP-446</b>	ALL POLYMERS	VERSAPOL GP-446 is a GP (" General Purpose") additive for all polymers.	When compounded into techno-polymers: - Acts an internal lubricants and mould release agent and improves the pigments or fillers dispersion - Promotes the Flux Junction, even in case of high viscosity polymers, reducing the cycles times - Eliminates all tensions surface, improving the trasparency and the HDT - In the case of ABS/PC and PC/PBT alloys it improves the intermeshing between the two or more polymer phases.  It allows a significant reduction (30-40°C) of the working temperatures, leading to an advantages in the flame retarded compounds. For this reason the product is well recommended in flame retardant masterbatches preparations ( Red Phosporous, etc..).	
LUBRICANTS/ MOULD RELEASERS/ COUPLING AGENTS	<b>AUSITERM 431</b>	PA, PC AND ALLOYS	AUSITERM 431 finds application in compounding, recycling, colouring of PA, PC and alloys.	It affects both the product and the process, by a reduction of the melt viscosity without any influence on the mechanical and optical properties. Side reported effects are the reduction of the process temperatures, good wetting ability towards filers and pigments, improved intermeshing, effects in the alloys production.  AUSITERM 431 doesn't lead to blooming or discolouring ad it doesn't reduce welding ability, printing or metal deposition.	
LUBRICANTS/ MOULD RELEASERS/ COUPLING AGENTS	<b>MODIFICANTE WLF</b>	PE / PBT	MODIFICANTE WLF acts as impact modifier from PET and PBT polyesters, when added during the extrusion process.	It's suitable for both virgin and recycled polyesters, and doesn't need any pre-drying before use. MODIFICANTE WLF leads to a synergic effect when used together with AUSIPOL PP-30 or REGRATEX MB-D to achieve extremely high impact performances.	
LUBRICANTS/ MOULD RELEASERS/ COUPLING AGENTS	<b>VERSAPOL GP-586</b>	PET	VERSAPOL GP-586 is particularly suitable for PET for honeycombb sheets.	When compounded into techno-polymers: - Acts an internal lubricants and mould release agent and improves dispersion; - Promotes the Flux Junction, even in case of high viscosity polymers, reducing the cycles times; - Eliminates all tension in surface, improving the trasparency and the HDT;  VERSAPOL GP-586 allows a significant reduction (30-40°C) of the working temperatures, leading to an advantages in the flame retarded compounds. For this reason the product is well recommended in flame retardant masterbatches preparations (Red Phosporous, etc..).	

FAMILY PRODUCT	NAME	POLYMER REF.	DESCRIPTION	EFFECTS	TECHNICAL DATAS
LUBRICANTS/ MOULD RELEASERS/ COUPLING AGENTS	<b>POLYNYL LD</b>	PA	POLYNYL LD is a strong mould release for PA.	The product is in liquid form and it is no-lasting. It can also be used as wetting agent for powder or granular additives.	
NUCLEATING	<b>AUSINYL DN AUSINYL M-DN</b>	PA	AUSINYL DN dramatically affects the crystallization rate of POLYAMIDE compounds and leads to an efficient mould release. AUSINYL M-DN is a complete package system of nucleating and mould release agents. No other additives are needed.	Compounding with AUSINYL ensures: - Short cylce time - Good mould release - Strong mould release - Good flow of molten polymer - Improved dimensional stability of injected extruded articles	<b>USAGE LEVEL:</b> - 0,15-0,20% in PA66 for AUSINYL DN - 0,30-0,50% in PA6 for AUSINYL DN - 0,50% in PA66, 1% in PA6 for AUSINYL M-DN  <b>PRODUCT FORM:</b> Powder/Pellets / Masterbatch in PA6 <b>ACTIVE CONC.:</b> 30-100% <b>MELTING POINT:</b> 160-180°C <b>BASE:</b> Polyamide
NUCLEATING	<b>ALTER-PROC MF</b>	PET	ALTER-PROC MF dramatically effects the crystallization rate of PET/Glass Fibers compounds and leads to an efficient mould release.	Compounding with ALTER-PROC MF ensures: - Short cylce time - Good mould release - Strong mould release - Improved dimensional stability of injected or extruded articles - Excellent HDT values of PET/GF compounds, up to 220°C-225°C	<b>USAGE LEVEL:</b> 2,5% to 3% <b>PRODUCT FORM:</b> Pellets <b>MELTING POINT:</b> 155-160°C <b>ACTIVE CONC.:</b> 30% <b>BASE:</b> Polyolefin
NUCLEATING	<b>PROCASTER MB-HDN</b>	PET	PROCASTER MB-HDN is employed in poly-ethylene-terephthalate (PET) to improve the crystallization rate and leads to an efficient mould release.	Compounding with PROCASTER MB-HDN ensures: -Short cylce time - Good mould release - Strong mould release - Improved dimensional stability of injected or extruded articles - Highest thermal and mechanical properties	<b>USAGE LEVEL:</b> 2,5% <b>PRODUCT FORM:</b> Pellets <b>ACTIVE CONC.:</b> 30% <b>MELTING POINT:</b> 155-160°C <b>BASE:</b> Polyolefin
NUCLEATING	<b>AUSISTER GF-1656</b>	PET / PBT	AUSISTER GF-1656 is a general purpose additive for PET and PBT resins.	Compounding with AUSISTER GF-1656 ensures: - Viscosity reduction of PET/PBT, during melt (not i.v.) - Reduction (30-40°C) of processing T - Improvement of fillers ans pigments dispersion - Flux junction promotion - Cycle time reduction - More efficient mould release - Better surface slipping - Reduced abrasion on the metallic components of the extruders or injection moulding machines, especially in case of GF reinforcement.	<b>USAGE LEVEL:</b> - 0,25 - 0,75% - 0,10 - 0,15% as processing aid in fibers spinning <b>PRODUCT FORM:</b> Pellets <b>ACTIVE CONC.:</b> 50% <b>MELTING POINT:</b> 165°C <b>BASE:</b> Polyolefin

FAMILY PRODUCT	NAME	POLYMER REF.	DESCRIPTION	EFFECTS	TECHNICAL DATAS
NUCLEATING	<b>PROCAPOL MB-LDN</b>	PP	PROCAPOL MB-LND is employed in PP to improve the crystallization rate and lead to an efficient mould release.	Compounding with PROCASTER MB-HDN ensures: <ul style="list-style-type: none"> <li>- Shorter cycle time</li> <li>- Good mould release</li> <li>- Strong mould release</li> <li>- Improved dimensional stability of injected or extruded articles</li> <li>- Highest thermal and mechanical properties;</li> </ul>	<b>USAGE LEVEL:</b> 2,5% <b>PRODUCT FORM:</b> Pellets <b>MELTING POINT:</b> 155-160°C <b>ACTIVE CONC.:</b> 30% <b>BASE:</b> Polyolefin
CHAIN EXTENDER	<b>REGRANYL 90</b>	PA	REGRANYL 90 is an additive for PA-6, PA-66, PA-12 and copolymers. It works as chain extender and re-polymerization agent, by reactive extrusion process.	When compounded in polyamide, REGRANYL 90 allows: <ul style="list-style-type: none"> <li>- To increase viscosity of the polymer and the relative mechanical properties;</li> <li>- To increase the pressure of the die</li> </ul>	<b>USAGE LEVEL:</b> 0,5% or according to the requirement of process <b>PRODUCT FORM:</b> Pellets <b>ACTIVE CONC.:</b> 95-100% <b>MELTING POINT:</b> 95-105°C <b>BASE:</b> Polyester or Polycarbossilic acid
CHAIN EXTENDER	<b>REGRATEX MB-D</b>	PET	REGRATEX MB-D is an additive designed for PET intrinsic viscosity enhancement, used to keep or to improve the viscosity and molecular weight during melt state processing. REGRATEX MB-D is suitable for both homo or copolymer PET, virgin or recycled.	REGRATEX is the best solution to increase intrinsic viscosity of PET, during recycling process.	<b>USAGE LEVEL:</b> 0,1 to 1% <b>PRODUCT FORM:</b> Masterbatch <b>MELTING POINT:</b> 230°C <b>ACTIVE CONC.:</b> 30% <b>BASE:</b> Co-polyester
CHAIN EXTENDER	<b>AUSIPOL PP-30</b>	PET	AUSIPOL PP-30 is an additive expressly designed for PET.	AUSIPOL PP-30 works as i.v. enhancer agent, through the extrusion process. It is suitable for PET no transparent (Stable fibers, compounds, ect.). AUSIPOL PP-30 must be employed as normal masterbatch, directly in the hopper of the extruder, never dried with PET. For complete a complete reaction well dried PET is required. Process temperature about 270-280°C and residence time longer than 1 minute are required.	<b>USAGE LEVEL:</b> 0,05 - 1% <b>PRODUCT FORM:</b> Masterbatch <b>ACTIVE CONC.:</b> 30% <b>MELTING POINT:</b> 165°C <b>BASE:</b> Polypropylene
CHAIN EXTENDER	<b>PROCAPOL DMF</b>	PE / PBT	PROCAPOL DMF is an additive designed for unfilled PET and filled or unfilled PBT.	PROCAPOL DMF is a multifunctional additive which allows: <ul style="list-style-type: none"> <li>- To maintain i.v. characteristics, avoiding the loss due to the process</li> <li>- Ensure an excellent mould-release and short injection cycles</li> <li>- Leads to parts featuring excellent mechanical and aesthetical characteristics</li> </ul> PROCAPOL DMF is suitable for not transparent compounds and it doesn't contain nucleant in order to keep amorphous state.	<b>USAGE LEVEL:</b> 0,3 - 1% <b>PRODUCT FORM:</b> Masterbatch <b>ACTIVE CONC.:</b> 30% <b>MELTING POINT:</b> 165°C <b>BASE:</b> Polypropylene

FAMILY PRODUCT	NAME	POLYMER REF.	DESCRIPTION	EFFECTS	TECHNICAL DATAS
STABILIZERS	<b>AUSINOX BN-2551</b>	PA	AUSINOX BN-2551 is a stabilizer especially recommended in PA compounding.	The effect offered by the AUSINOX BN-2551 allows to keep the mechanical characteristics of the PA particles submitted to continuous thermal cycles (i.e. automotive components, electrical appliances, etc...).	<b>AUSINOX BN-2551 is recommended for natural or light coloured PA compounds. In the black or dark coloured PA compounds, the AUSISTAB BTN is more suitable.</b>
STABILIZERS	<b>AUSINOX PA-2789</b>	PA	AUSINOX PA-2789 is a stabilizer especially recommended in Polyamides, virgin and recycled.	The effect offered by the AUSINOX PA-2789 allows to avoid polymer yellowing in neutral polyamides and, eventually, to recover neutral colour in partially oxidized PA6 and PA6.6. The stabilizer can be used both in compounding or during the injection moulding step.	<b>AUSINOX PA-2789 is totally compatible except in the case copper salts are employed. In such case a purple coloration rises.</b>
STABILIZERS	<b>AUSISTAB BTN</b>	PA	AUSISTAB BTN is a stabilizer recommended in polyamides compounding.	The stabilization effect offered by the AUSISTAB BTN allows to maintain the mechanical characteristics of the PA products submitted to continuous thermal cycles (i.e. automotive components, electrical appliances, etc...).	AUSISTAB BTN is recommended in black or dark coloured PA compounds. In natural or light coloured PA Compounds the AUSINOX BN-2551 is more suitable.
STABILIZERS	<b>AUSINOX MB-VPL</b>	PP VIRGIN AND RECYCLED	AUSINOX MB-VPL is a process stabilizer especially recommended in Polypropylene, virgin and recycled.	The employing of the AUSINOX MB-VPL avoids polymer yellowing in neutral and filled polymer and, eventually, the loss of mechanical properties. The stabilizer can be used both in compounding or during the injection moulding step.	
ANTI-BLOCK	<b>PET A-BLOCK 01</b>	PET	PET A-BLOCK 01 is an anti-block masterbatch, developed specifically for PET. It's a mixture of selected organic and inorganic additives, meticulously dispersed in PET.	PET A-BLOCK 01 is a studied formulations of inorganic and organic antiblock additives. With optimized additive particle size, extremely high superficial area and great homogenous dispersion in PET matrix, PET A-BLOCK guarantees an extremely good antiblock effect for PET.	





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