



Precision

We don't have the power
to create or destroy matter,
but we know the secret
to transform it.



CHEMICALS



Dynasol
Group

Chemicals

The chemical complex counts with an extension of 50 Ha on the banks of the Ebro River in the town of **Zubillaga, Lantarón**, in the province of **Alava, Spain**.

The plant capacity is **30 TPY of various types of fine rubber chemicals** such as accelerators, antioxidants among others **industrial materials**

The main markets we serve are **tire, tube, hoses, cables technical rubber parts, coatings latex, footwear, agrochemicals and dyes**.

CHEMICALS

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Rubber chemicals

Under the trade names Rubenamid and Rubator, our Rubber Chemical business produces a wide range of primary and secondary vulcanization accelerators covering all needs of rubber manufacturing goods sector referring scorch safety (from “very long” to “very short”), cure rate (from “very fast” to “slow”) and modulus development (from “very high” to “low”).

Our products are useful with all kind of rubbers, natural and synthetic, and specially recommended for NR, SBR, NBR, BR, IIR and lattices for production of articles of high mechanical performance such as tires, conveyor belts, shoes, cables, bumpers...; other General Rubber Goods like toys, insulation, cables and wiring fabric, water-proofing, tubes and pipes and

products manufactured by molding or extrusion and for production of rubber goods from lattices as carpets, sponges, coatings, gloves, wires and prophylactics.

Under the trade name Rubatan, We supply paraphenylenediamine derivatives with powerful antioxidant and antiozonant properties and TMQ as antidegradant. They provide to rubber articles protection against atmospheric action and against cracking and fatigue degradation as result of static and dynamic operating conditions even at high temperatures. They are recommended for protection of natural and all kind of synthetic rubber vulcanizates.

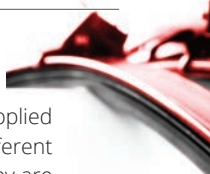


Liquid dyes Incopel

Anaranjado Incopel GT is a liquid presentation of Direct Orange 39 with application as dye for paper industry. Product can be prepared at different concentrations and with a broad range of color shades according customer requirements.

Sodium sulfides

Sodium sulfide and sodium hydrogen sulfide are supplied either as solid in flakes form or as solution at different concentrations according customer requirements. They are extensively used as dehairing agents for leather industry, intermediates for chemical synthesis, in mining for flotation of sulfidic ores, as reagents for Kraft process in paper mills, in wastewater treatment for precipitation of heavy metals and as general purpose reducing agents.

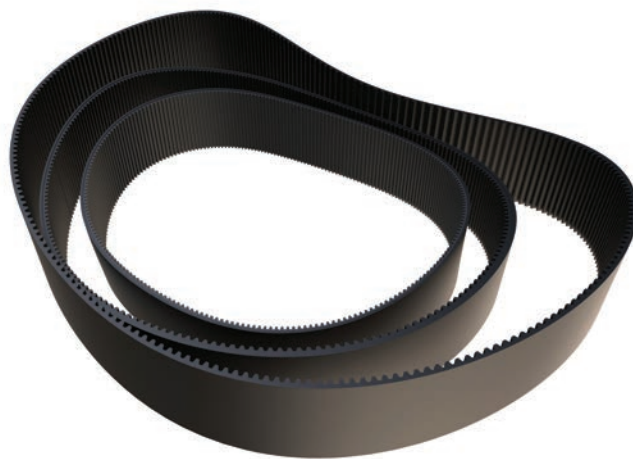


Wastewater treatment /preservative

Incoflor Bio B is a sodium dithiocarbamate solution with biocide properties used as preservative of wet-blue phase in the leather industry. It is also used as antifouling agent in cooling towers and paper industry. Additionally Incoflor Bio B can be used as process regulator in polymer production and in wastewater treatment for precipitation of heavy metals.

Agrochemicals

Organophosphorus active ingredients for formulation of broad action insecticides. Formulations manufactured with our active ingredients are of common use to protect crops and fruit trees against pests. Phosmet technical has also veterinary applications in products for deworming of domestic animals, including pets.



CHEMICALS

APPLICATION GUIDE

PRODUCT

Type	Brand	Grade	Chemical name	Purity (%)	Sieve rejection 63 mm (%)	Melting point (°C)
Antioxidants	Rubatan	184 (TMQ)	TMQ	NA		80-100 °C (SP)
Antioxidants	Rubatan	IF (IPPD)	IPPD	96.0 % min		76 °C min
Antioxidants	Rubatan	BF (6PPD)	6PPD	97.0 % min		44 °C min
Dithiocarbamates	Rubator	ETZ (ZDEC)	ZDEC	96.0 % min	0.5 % max	174 °C min
Dithiocarbamates	Rubator	DBZ	ZBZC	96.0 % min	0.5 % max	103 °C min
Dithiocarbamates	Rubator	ZBEC	ZBEC	96.0 % min	0.5 % max	178 °C min
Guanidines	Rubator	DPG	DPG	97 % min		
Accelerator Blends	Rubator	Activador R	MIX		0.5 % max	
Accelerator Blends	Rubator	H7	HMT		0.5 % max	
Accelerator Blends	Rubator	MA/T	MIX		0.5 % max	
Accelerator Blends	Rubator	FQ	MIX		0.5 % max	
Accelerator Blends	Rubator	TAX	MIX		0.5 % max	
Retardants	Rubatan	PVI	PVI	97.0 % min		
Sulphenamides	Rubenamid	C (CBS)	CBS	95 % min		
Sulphenamides	Rubenamid	T (TBBS)	TBBS	95 % min		
Sulphenamides	Rubenamid	DS (DCBS)	DCBS	96 % min		
Thiazoles	Rubator	MBT	MBT	95 % min	0.5 % max	175 °C min
Thiazoles	Rubator	MBTS	MBTS	95 % min	0.5 % max	170 °C min
Thiazoles	Rubator	ZMBT	ZMBT	****	0.5 % max	
Thiurams	Rubator	DTMT	TMTD	96 % min	0.5 % max	145 °C min
Non Rubber Specialties	IO	Inconpel Orange	Direct Orange 39			
Non Rubber Specialties	IBB	Incoflor Bio B	Sodium Dimethyl Dithiocarbamate in Solution (40 %)			
Non Rubber Specialties	SHF	Sodium Hydrogen Sulphide (Flakes)	Hydrated Sodium Hydrogen Sulphide (70 - 75 %)			
Non Rubber Specialties	SHS	Sodium Hydrogen Sulphide (Solution)	Sodium Hydrogen Sulphide (45 - 64 %)			
Non Rubber Specialties	SSF	Sodium Sulphide (Flakes)	Hydrated Sodium Sulphide (58 - 62 %)			
Non Rubber Specialties	BT	Benzothiazole	Benzothiazole High Purity (98 % min)			

APPLICATION

Zinc (%)	Ash (%)	Vulcanized compounds	Tires	Water treatment	Textile	Leather	Paper	Mining	Chemical reagent
	0.5 % max	🔺	🔺						
	0.1 % max	🔺	🔺						
	0.1 % max	🔺	🔺						
16.5 -18.5 %		🔻							
13 - 16 %		🔻							
10.2 - 11.3 %		🔻							
	0.3 % max	🔻	🔻						
	40 - 50 %	🔻							
	2 - 4 %	🔻	🔻						
	NA	🔻							
	NA	🔻							
	NA	🔻							
	0.2 % max	🔻	🔻						
	0.5 % max	🔻	🔻						
	0.5 % max	🔻	🔻						
	0.5 % max	🔻	🔻						
	0.5 % max	🔻	🔻						
	0.5 % max	🔻	🔻						
	20 - 24 %	🔻	🔻						
	0.5 % max	🔻	🔻						
				🔻	🔻	🔻	🔻	🔻	🔻
				🔻		🔻	🔻	🔻	🔻
				🔻		🔻	🔻	🔻	🔻
				🔻		🔻	🔻	🔻	🔻



ANTIOXIDANTS | RUBATAN

Brand Grade	Description	Uses	Purity (%)	Ash (%)
Rubatan 184 (TMQ)	Rubatan 184 (TMQ) is a radical scavenger in a wide range of elastomers to protect against aging.	It is recommended for protection of Natural rubber vulcanizates and Synthetic rubbers (SBR, BR, IR, CR, NBR) and for lattices, crosslinked Polyethylenes, crosslinked Ethylene-Propylene copolymers and peroxide crosslinkable copolymers.	*****	0.5 max
Rubatan IF (IPPD)	Rubatan IF (IPPD) is a powerful antioxidant and antiozonant. Provides protection against atmospheric action and against the cracking and fatigue degradation as result of static and dynamic operating conditions.	Applications include the use in pneumatic tire components, hoses, belts, cables, automotive spare parts, bushings and general mechanical products exposed to strong static and dynamic operating conditions providing a highly efficient protection from ozonation.	96.0 min	0.1 max
Rubatan BF (6PPD)	Rubatan BF (6PPD) is a powerful antioxidant and antiozonant. Provides protection against atmospheric action and against the cracking and fatigue degradation as result of static and dynamic operating conditions.	Is recommended for use in NR, BR, SBR, NBR, Polyisoprene, Acrylonitrile-butadiene rubber and Polychloroprene. Provides powerful antiozonant and antioxidant properties with excellent high temperature, fatigue and flex resistance to rubber compounds. To improve protection efficiency in static conditions, the use together with a microcrystalline wax is recommended.	97.0 min	0.1 max

DITHIOCARBAMATES | RUBATOR

Brand Grade	Description	Uses	Zinc (%)	Melting point (°C) min
Rubator ETZ (ZDEC)	Rubator ETZ is an ultra-accelerator.	The main use is for Natural and Synthetic lattices. Its accelerating effect is similar to that of Rubator MTZ but with less scorching, is a very good activator of Thiazoles, Sulfenamides and Guanidines.	16.5 - 18.5	174 °C min
Rubator DBZ	Rubator DBZ is a very active accelerator.	Gives resistance against heat and UV light effect to vulcanizates acting also as a powerful antioxidant on the rubber.	13 - 16	103 °C min
Rubator ZBEC	Rubator ZBEC is an ultra-accelerator.	Is used in the manufacture of foamed articles and wires, transparent, white, translucent or coloured goods, sealants, cable insulation, gloves and dipped and molded products. Also suitable for textile water-proofing, ebonites, toys, prophylactics and sealants for use in contact with foods.	10.2 - 11.3	178 °C min

GUANIDINES | RUBATOR

Brand Grade	Description	Uses	Purity (%)	Ash (%)
Rubator DPG	Rubator DPG is used as secondary accelerator in combination with thiazoles and sulfenamides in most of the sulfur cured elastomers.	Is generally used as secondary accelerator in products with high mechanical demands. It is particularly preferred when using NR, SBR and Polychloroprene rubbers.	97.0 min	0.3 max



ACCELERATOR BLENDS | RUBATOR

Brand Grade	Description	Uses	Purity (%)	Ash (%)
Activador R	Activador R is an additive for use in natural rubber and SBR rubbers	Is Used for compounds with NR and SBR rubbers.	****	40 - 50
Rubator H7	Rubator H7 is a mild accelerator usually combined with other thiazole and thiuram series accelerators for slow vulcanization. As aminic accelerator has not retardant effect and starts vulcanisation immediately.	Can be used for press and steam curing systems. When combined with other accelerators, compounds can be cured by hot air. Is recommended for using in NR, IR, BR, SBR and NBR. It is mainly used for transparent, white or light coloured products.	****	2 - 4
Rubator MA/T	Rubator MA/T is a general purpose blend of accelerators.	Is used for rubber vulcanization.	****	****
Rubator FQ	Rubator FQ is accelerator of delayed action with little susceptible to pre-vulcanizing even in the worst conditions of temperature.	Can be used in the manufacture of all types of rubber.	****	****
Rubator TAX	Rubator TAX is a general purpose blend of accelerators.	Is used for rubber vulcanization.	****	****

RETARDANTS | RUBATAN

Brand Grade	Description	Uses	Purity (%)	Ash (%)
Rubatan PVI	Rubatan PVI is a pre-vulcanization inhibitor for sulfur cureable compounds giving controllable processing safety.	Can be used with most of polymers. The activity is dependent upon polymer used in the following decreasing order: NR>NBR>SBR>EPDM>IIR>CR.	97.0 min	0.2 max

SULPHENAMIDES | RUBENAMID

Brand Grade	Description	Uses	Purity (%)	Ash (%)
Rubenamid C (CBS)	Rubenamid C (CBS) is a delayed action accelerator. When used at temperatures above 135 °C Rubenamid C vulcanises in a short space of time giving vulcanizates with very good mechanical properties.	Is suitable of use in NR, IR, BR, SBR, NBR vulcanization and in partially saturated elastomers by press, injection and transfer moulding. Can be used with different continuous vulcanization methods (steam, salt baths and microwaves) using another secondary accelerator.	95 min	0.5 max
Rubenamid T (TBBS)	Rubenamid T (TBBS) is an accelerator with more delayed action than Rubenamid C. This is the reason why it is recommended when high temperatures during processing or long periods of fluidity are required.	Is suitable of use in NR, IR, BR, SBR, NBR vulcanization and in partially saturated elastomers by press, injection and transfer moulding. RUBENAMID T can be used with different continuous vulcanization methods (steam, salt baths and microwaves) using another secondary accelerator.	95 min	0.5 max
Rubenamid DS (DCBS)	Rubenamid DS (DCBS) is a slow curing delayed action accelerator that provides longer cure time and lower modulus.	Is suitable of use in NR, IR, BR, SBR, NBR vulcanization and provides the best scorch resistance and lower modulus of the whole range of sulfenamides. Strongly recommended in the production of thick rubber articles.	96 min	0.5 max



THIAZOLES | RUBATOR

Brand Grade	Description	Uses	Purity (%)	Ash (%)
Rubator MBT	Rubator MBT is a fast curing primary accelerator.	Is a moderately fast curing primary accelerator. With wide range of application, is recommended for use at temperatures above 120°C for natural and synthetic rubbers.	95 min	0.5 max
Rubator MBTS	Rubator MBTS is a medium fast curing primary accelerator and with excellent curing safety.	Is used in the manufacture of products that require heat resistance, footwear, insulation, cables and wiring fabric, water-proofing, tubes and pipes, films and products manufactured by calendering, metal bonded articles and ebonites.	95 min	0.5 max
Rubator ZMBT	Rubator ZMBT is a fast curing primary accelerator.	Main use are the production of rubber goods from lattices as carpets, sponges, coatings, gloves, wires and prophylactics.	****	20 – 24

THIURAMS | RUBATOR

Brand Grade	Description	Uses	Purity (%)	Ash (%)
Rubator DTMT	Rubator DTMT is an ultra-accelerator recommended for Natural rubber, SBR, NBR, Polychloroprene, Butyl rubber and EPDM.	Is used in the manufacture of transparent, white, translucent or coloured goods, surgical and medical items, toys, footwear, products that require heat resistance, insulation, cables and wiring fabric, water-proofing, tubes and pipes, profiles, hard rubber products or rapid vulcanization belts, sporting goods, inner tubes, dipped products and other technical goods.	96 min	0.5 max

NON RUBBER SPECIALTIES

Initials	Chemical name	Description	Uses
IO	Direct Orange 39	Incopel Orange is a aqueous solution of the dye Direct Orange 39.	Dyeing of cellulosic fibers (paper).
IBB	Sodium Dimethyl Dithiocarbamate in Solution (40%)	INCOFLOR BIO B is chemical substantiated.	Is used as Biocide, vulcanization accelerator and water treatment.
SHF	Hydrated Sodium Hydrogen Sulphide (70 - 75%)	Sodium Hydrogen Sulphide (Flakes), is chemical compound derived from hydrogen, sulfur and caustic soda.	Is used as an additive in water treatment in mining and paper industry.
SHS	Hydrated Sodium Hydrogen Sulphide (45 - 64%)	Sodium Hydrogen Sulphide (Solution), is chemical compound derived from hydrogen, sulfur and caustic soda.	Is used as an additive in water treatment in mining and paper industry.
SSF	Hydrated Sodium Sulphide (58 - 62%)	Sodium Sulphide (Flakes), is chemical compound derived from Hydrogen Sulphide and caustic soda.	Is used as an additive in water treatment in mining and paper industry.
B	Benzthiazole High Purity (98 % min)	Benzothiazole is a liquid pure substance.	Used as Intermediate for synthesis of other products in the rubber and pharma fields.





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