



# CROSSLINKING AGENTS

**HYDROSIN®**

BLOCKED POLY-ISOCYANATE / POLY-CARBODIIMIDE



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## BLOCKED POLY-ISOCYANATE - PRODUCT OVERVIEW:

HYDROSIN® fluorine-free blocked-isocyanate. They can be used as crosslinking agents for various coating applications that require heat-curing cycles. Applications include increased durable water repellent (DWR) effect and soil release properties. The durability and the adhesion of coatings are also improved. All of our HYDROSIN® blocked-isocyanate polymers are formaldehyde-free.

### PROPERTIES:

- IMPROVE THE DURABLE WATER REPELLENCE (DWR) EFFECT
- IMPROVE THE SOIL RELEASE PROPERTIES ON TEXTILES AND LEATHER
- IMPROVE THE RESISTANCE TO CHEMICAL AND TO ENVIRONMENTAL ATTACK
- ENHANCE THE LAMINATION AND ADHESION OF COATINGS
- IMPROVE THE DURABILITY OF COATINGS AND ADHESIVES IN AQUEOUS-PAD APPLICATIONS
- IMPROVE THE RESISTANCE TO BLOOD AND SALINE PENETRATION IN WOVEN AND NONWOVEN FABRICS
- REQUIRE HEAT-CURING CYCLES

## BLOCKED POLY-ISOCYANATES

HYDROSIN® PRODUCTS	IONIC NATURE	ACTIVE SUBSTANCE	CHEMICAL DESCRIPTION	FEATURES & BENEFITS
NF-08	Non-ionic	39%	Blocked isocyanate in water	Water-based and MEKO-free stabilized crosslinking agent. It improves the water- and oil- repellence effect of fluorocarbon textile products. It can be used in the curing of all polyurethane and acrylic dispersion to improve their chemical and physical resistance. It provides a durable and transparent treatment when applied on textile fibres. It does not change the original appearance of the treated materials
C-20	Non-ionic	40%	Blocked isocyanate in water	Water-based and DMP-blocked crosslinking agent. It can be used in the curing of polyurethane and acrylic dispersions, generally improving their chemical-physical resistance. This product provides a durable and transparent treatment to textile finishes. Used in combination with fluorocarbon auxiliaries, it provides soft-hand touch to treated fabrics.
C-21	Anionic	40%	Blocked isocyanate in water	Water-based and DMP-blocked crosslinking agent. It can be used in the curing of polyurethane and acrylic dispersion, generally improving their chemical-physical resistance. It offers an excellent crosslinking power to the resins used in textile printing. Suggested for anionic system.
C-22	Cationic	32%	Blocked isocyanate in water	Water-based and DMP-blocked crosslinking agent. It can be used in the curing of polyurethane and acrylic dispersion, especially for cationic systems. This product provides a durable and transparent treatment to textile finishes. It improves water and oil repellence effect of fluorocarbon textile products.
C-28	Non-ionic	40%	Blocked isocyanate in water	Water-based and DMP-blocked crosslinking agent. It can be used as extender to improve oil and water resistance. High resistance to yellowing, it improves wet color fastness and fabric quality. It works as fixing agent in pigment printing.

## POLY-ISOCYANATES

HYDROSIN® PRODUCT	IONIC NATURE	ACTIVE SUBSTANCE	CHEMICAL DESCRIPTION	FEATURES & BENEFITS
C-25	-	70%	Poly-isocyanate	Poly-isocyanate crosslinking agent used in the curing of acrylic polymers and polyurethane dispersions for textile treatment, as well as in wood and metal finishing formulations. It enhances the performances of fluorocarbon finishes, requiring a soft curing temperature. This product provides high durability in water and oil repellence and it improves the stain release effect of the fluorocarbon auxiliaries. It maintains pure white color after heat treatment.

## POLY-CARBODIIMIDE - PRODUCT OVERVIEW:

HYDROSIN® fluorine-free carbodiimide crosslinkers. They are an excellent alternative for more hazardous isocyanate and aziridine crosslinkers. They react with COOH groups (in acrylic and polyurethane polymers) forming the so-called "interpenetrating network" with the polymeric binder. The result is a dense network that improves the resistance performances of the coating against cleaning liquids and prevents sun cream lotions, food and chemicals stains.

## PROPERTIES:

- INCREASE STRENGTH AND HARDNESS
- IMPROVE ABRASION AND CHEMICAL RESISTANCE
- IMPROVE THE RESISTANCE TO HYDROLYSIS
- INCREASE THE ADHESION TO SUBSTRATES
- IMPROVE PRODUCTS POT-LIFE
- NOT MOISTURE SENSITIVE
- FAST CURING SPEED

## POLY-CARBODIIMIDES

HYDROSIN® PRODUCTS	IONIC NATURE	ACTIVE SUBSTANCE	CHEMICAL DESCRIPTION	FEATURES & BENEFITS
NF-12	Non-ionic	100%	Poly-carbodiimide	Fluorine-free polymeric multifunctional carbodiimide. It is a crosslinking agent for dispersions and emulsions of aqueous polymers containing carboxyl groups.
NF-12D	Non-ionic	50%	Poly-carbodiimide	Fluorine-free polymeric multifunctional carbodiimide. Crosslinking agent for dispersions and emulsions of aqueous polymers containing carboxyl groups. Anti-hydrolysis properties.
NF-15	Non-ionic	30%	Poly-carbodiimide	Fluorine-free polymeric multifunctional carbodiimide. It is a crosslinking agent for room temperature curing. It can be added to dispersions of polyurethane and acrylic polymers to enhance their performances.
C-26	Non-ionic	40%	Poly-carbodiimide	High molecular weight crosslinking agent, with an high content of reactive groups. Long pot life and compatibility with waterborne acrylic and polyurethane emulsions or resins. It improves abrasion resistance and hardness.
C-27	Non-ionic	40%	Solvent-based poly-carbodiimide	Solvent-based high molecular weight carbodiimide. It improves adhesion, other than abrasion and scratch resistance. High pot-life of the formulation, it improves chemical resistance against organic solvent and water and both aqueous and solvent based coatings.





**MAFLON S.p.A.**

Via don Ravizza snc - 24060 Castelli Calepio (BG) - Italy  
Ph. (+39) 035 4494301 - Fax (+39) 035 4494331

[info@maflon.com](mailto:info@maflon.com) // [www.maflon.com](http://www.maflon.com)