

# **ITALIA** ROAD SECTOR







# Innovation Inside.





### THE BEST SOLUTIONS FOR THE ROAD COMMUNITY

Since 1946 our company has stood out in the market thanks to our complete and unique product range, consisting of products and chemical additives of outstanding technology, refractory coatings, sands, a wide range of metallurgical products, software and digital system of process control. Thanks to this wide product portfolio, nowadays we are a strategic supplier for several industrial sectors, especially for foundry, construction and roads, abrasives.

The broad technical know-how together with numerous international partnerships and advanced technologies make HA Group (Hüttenes-Albertus), currently present in more than 30 Countries, the only Italian supplier of chemicals whose know-how embraces a high number of industrial sectors.

The core business of HA Italia is the production and sales of high performance additives for bitumen and asphalt mixes.

Additives for bitumen and asphalt mixes must be added during the bitumen-aggregate mixing phase to modify the physical or chemical properties of the hot and/or cold mixture.

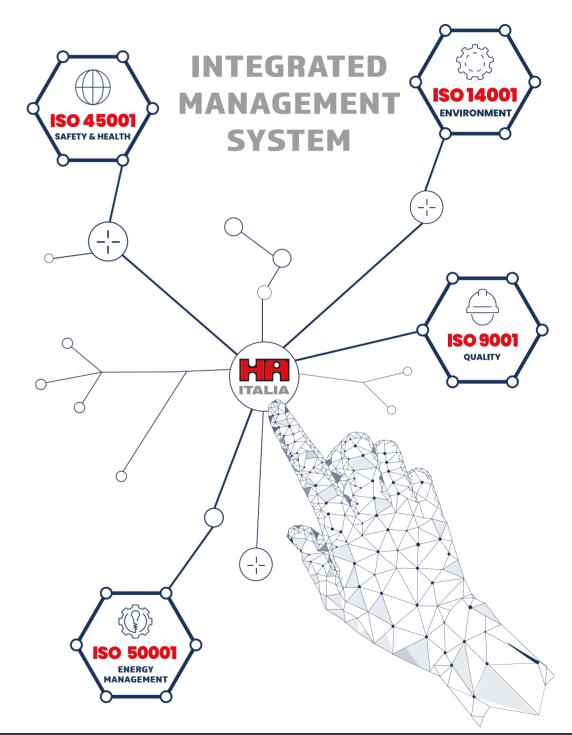
HA Italia offers a full range of additives for bitumen and asphalt mixes which are technologically innovative and can be used by asphalt mix industries.

With our products the operator can obtain high-quality asphalt mixes which are more durable, stable and resistant to mechanical stresses, ensuring good workability.

Thanks to its R&D laboratories and technicians, HA Italia can provide technical assistance directly at the site identifying the most appropriate product for each customer in order to ensure maximum productivity and highest performance.



### **OUR CERTIFICATIONS**





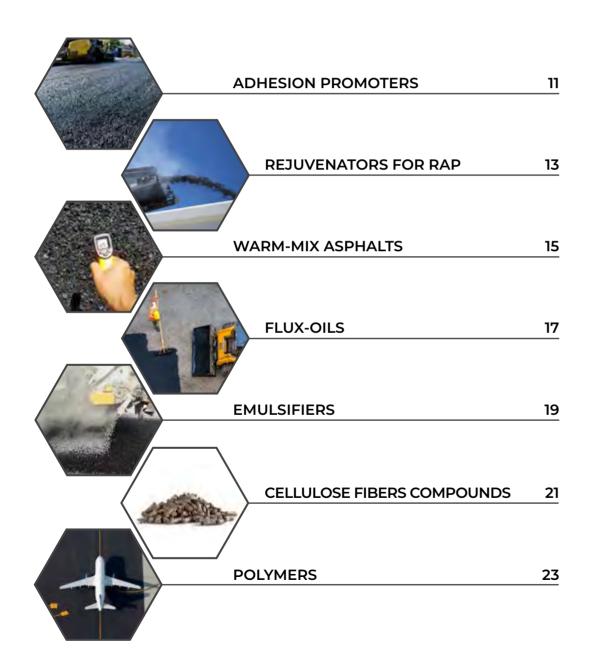


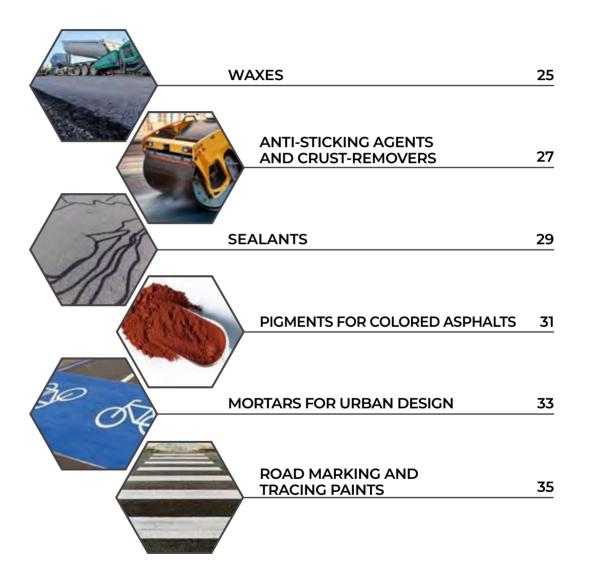






### **OUR PRODUCTS:**









### **ADHESION PROMOTERS**

**Description:** 

**HA.PROBIT** is the family of adhesion promoters giving bitumen a perfect and lasting adhesion to the asphalt mix despite of its chemical nature and the disruptor effect of water.

The chemical structure of the binder changes through the addition of **HA.PROBIT** to bitumen. **HA.PROBIT** provides longer durability of the pavement, increased stripping resistance on the aggregate, an increase in workability and improved compaction of the resulting asphalt mix, a more efficient wettability and increased stability and mechanical resistance. These performance are essential in various fields of use.

ТҮРЕ	CHEMICAL NATURE	DOSAGE
HA.PROBIT PHO	Organic ester	0,1-0,3% over bitumen weight
HA.PROBIT PA	Organic imidazoline	0,1-0,3% over bitumen weight
HA.PROBIT SA	Organo-silane	0,05-0,1% over bitumen weight

### Field of applications:

Special road pavements, highway pavements, suburban pavements, urban pavements, wear layers, draining floorings, SMA, recycling.





PERFORMANCE, not only ADDITIVES



ADHESION PROMOTERS | HA.PROBI





### **REJUVENATORS FOR RAP**

**Description:** The rejuvenators line **HA.ACF** provides aged bitumen from the RAP material the physical and chemical characteristics lost during its oxidation. Through the use of these additives it is possible to recover variable RAP concentrations by reducing the use of new aggregates.

ТҮРЕ	FUNCTION	DOSAGE	
HA.ACF GREEN	Rejuvenator for HMA	0,1-0,3% over RAP weight	
HA.ACF PRO	Rejuvenator and adhesion promoter for HMA	0,1-0,3% over RAP weight	
HA.ACF WMA	Rejuvenator, adhesion promoter and warm-mix asphalt	0,1-0,3% over RAP weight	
HA.ACF CAM	Rejuvenator for high percentages of RAP	0,1-0,4% over RAP weight	
HA.ACF CAM PLUS	Rejuvenator for varying percentages of RAP	0,1-0,5% over RAP weight	
HA.ACF ULTRA 100RAP	Rejuvenator for 100% RAP	2,0-2,5% over RAP weight	

Field of applications:

Special road pavements, highway pavements, suburban pavements, urban pavements, wear layers, draining floorings, SMA, recycling.











### WARM-MIX ASPHALTS

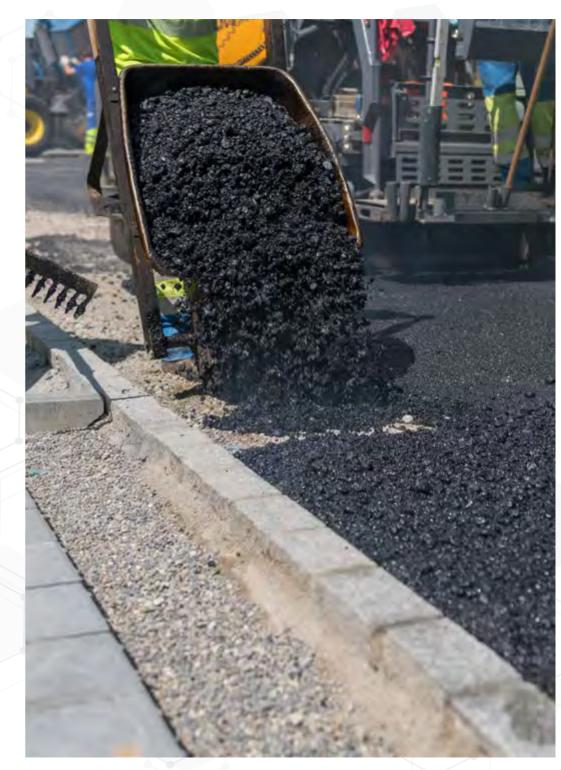
**Description:** The HA.LOWARM line is part of WMA (Warm-Mix Asphalts) technology and allows a drastic reduction in the temperature of production, application and compaction of the asphalt mix. In this way, the use of this range of additives leads to the reduction of emissions in the atmosphere.

ТҮРЕ	FUNCTION DOSAGE	
HA.LOWARM	It improves the workability of asphalt mixes	0,3-0,6% over bitumen weight
HA.LOWARM S	It improves the workability of asphalt mixes	0,3-0,6% over bitumen weight

**Field of** applications:

Special road pavements, highway pavements, suburban pavements, urban pavements, wear layers, draining floorings, SMA, recycling.





ASPHALTS | HA.LOWARM

WARM-MIX





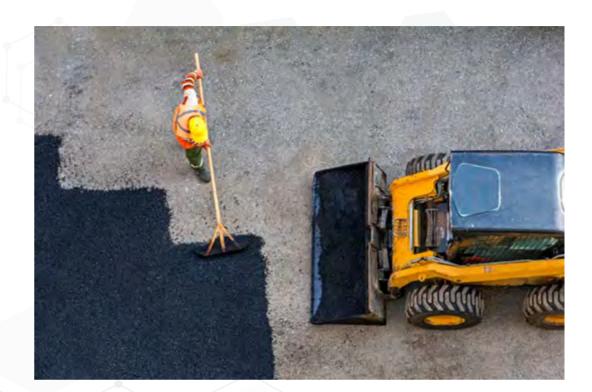
### **FLUX-OILS**

**Description:** The line of flux-oils **HA.FLUXCOLD** comes from plant nature. Their chemical action is to reduce the viscosity coefficient of bitumen by making them more workable. Their use leads to easily workable asphalt mixes at room temperature even during long periods of time and especially during the cold seasons.

ТҮРЕ	CHEMICAL NATURE	CHARACTERISTICS	DOSAGE
HA.FLUXCOLD VG	Vegetable	Flux-oil	15-35% over bitumen weight
HA.FLUXCOLD VG PLUS	Vegetable	Flux-oil and adhesion promoter	15-35% over bitumen weight
HA.FLUXCOLD VE	Vegetable	Flux-oil	15-35% over bitumen weight
HA.FLUXCOLD VE PLUS	Vegetable	Flux-oil and adhesion promoter	15-35% over bitumen weight
HA.FLUXCOLD BIO	Biological	Flux-oil	15-35% over bitumen
HA.FLUXCOLD BIO PLUS	Biological	Flux-oil and adhesion promoter	15-35% over bitumen weight

Field of Ordinary road maintenance. applications:











### **EMULSIFIERS**

Description:

n: The line of emulsifiers **HA.EMULBIT** allows the production of anionic and cationic bitumen emulsions for road and industrial uses by promoting the perfect dispersion of bitumen in water both for traditional and special treatments. Dispersed bitumen in water is appropriate for the following types of applications: tack coats, surface treatments, impregnation and waterproofing treatments, special bituminous pastes, slurry seal, cold recycling, etc.

	Emu	lsion		Se	tting		
TIPOLOGIE	Anionic	Cationic	Rapid	Medium	Slow	Over - stabilized	DOSAGE
HA.EMULBIT C/RMS		•	•	•			0,3-0,6% over emulsion weight
HA.EMULBIT C/SS		•			•	•	1,0-1,4% over emulsion weight
HA.EMULBIT A/RMS	•		•	•			0,3-0,6% over emulsion weight
HA.EMULBIT A/SS	•				•		1,5-3,0% over emulsion weight

Field of applications:

Tack coat, surface treatment, impregnation coat, micro surfacing, cold recycling, waterproofing.



### Other additives for bitumen emulsions

ТҮРЕ	FUNCTION	DOSAGE		
HA.EMULPITCH TOP	Emulgator for anionic bitumen emulsions	1,0-3,0% over bitumen weight		
HA.EMULFLUX M	Flux-oil for anionic and cationic bitumen emulsions	1,0-5,0% over bitumen weight		
HA. EMULATEX C	Modifier for cationic bitumen emulsions	1,0-5,0% over emulsion weight		
HA.EMULATEX C PLUS	Modifier for cationic bitumen emulsions	1,0-5,0% over emulsion weight		
HA.EMULATEX A	Modifier for anionic bitumen emulsions	1,0-5,0% over emulsion weight		
HA.EMULTIX	Stabilizer for bitumen emulsions	0,25-0,40% over emulsion weight		
HA.EMULFOAM	Defoamer for bitumen emulsions	0,01-0,04% over emulsion weight		

Modifiers for bitumen emulsions: The line of modifiers for bitumen emulsions **HA.LATEX** allows to modify the anionic and cationic binder improved by improving its physical and mechanical characteristics, giving a high-performance yield during long time periods.







### **CELLULOSE FIBERS COMPOUNDS**

Description:

The fiber compound line named **HA.FIBERBIT** is in pellets of cellulosic, mineral and/or synthetic nature. They stabilise and structure the draining, semi-draining and SMA-type (SplittMastix Asphalt) asphalt mixes thickening the bitumen and giving the resulting road surface a particularly performant, stable and resistant effect. The improvement in mechanical performance involves a more durable road paving that will develop a more efficient resistence of traction, fatigue, thermal excursions, and will present a higher stiffness module.

ТҮРЕ	COMPOSITION	DOSAGE
HA.FIBERBIT C	Pure cellulose fiber compound	0,3-0,6% over inerts weight
HA.FIBERBIT CV	Cellulose and mineral fiber compound	0,3-0,6% over inerts weight
HA.FIBERBIT CB	Pre-bituminized cellulose fiber compound	0,3-0,6% over inerts weight
HA.FIBERBIT CVB	Pre-bituminized cellulose and mineral fiber compound	0,3-0,6% over inerts weight
HA.FIBERBIT CP	Cellulose fiber compound and polymers	0,3-0,6% over inerts weight

Field of applications:

Special road pavements, highway pavements, suburban pavements, urban pavements, wear layers, draining floorings, SMA, recycling.





## **PASSION** and **COMMITMENT**

our FORMULA for YOUR SUCCESS



MADE IN ITALY



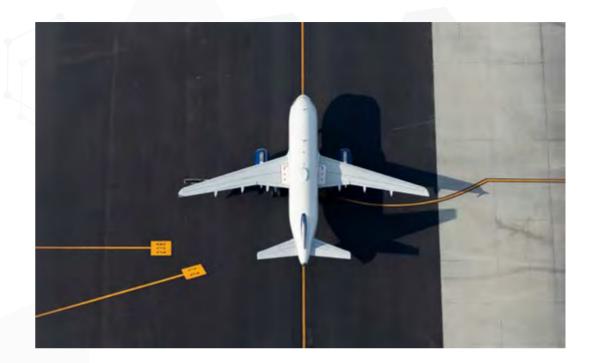
### POLYMERS

**Description:** The polymers line **HA.POLYPLAST** is part of the technology for the modification of the PMA (Polymer Modified Asphalt) bitumen and allows the physical and mechanical performance of asphalt mixes to be improved through their use. The resulting road surface will perform in terms of tensile strength, fatigue, thermal excursions and will present a higher stiffness module.

HA.POLYPLAST GS Plastomeric copolymer 4,0-12,0% over	er bitumen weight
HA.POLYPLAST LOW Plastomeric copolymer 4,0-12,0% over	er bitumen weight
HA.POLYLAST L Elastomer 3-6% over	bitumen weight

Field of applications:

Special road pavements, suburban, urban, semi-open draining pavements, SMA.







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### WAXES

Description:

The waxes line **HA.WAXBIT** allows to modify the strength characteristics of the bitumen-aggregate interface and the physical and mechanical performance of asphalt mixes produced by their use.

There are important changes in the rheological behaviour and thermal susceptibility of the basic binder. The modified bitumen will be a complex mixture in which solid-state wax crystals will occupy spaces within the bituminous matrix, varying macroscopically the characteristics of the binder and all related physical properties: increase of stiffness and elasticity, changes in characteristics of the flow, changes in the kinetics of ageing processes.

ТҮРЕ	COMPOSITION	DOSAGE
HA.WAXBIT EP	Synthetic wax	1,0-4,0% over bitumen weight

Field ofBitumen, hight workability asphalt mixes.applications:









### ANTI-STICKING AGENTS AND CRUST-REMOVERS

**Description:** 

HA.ANTICRUST

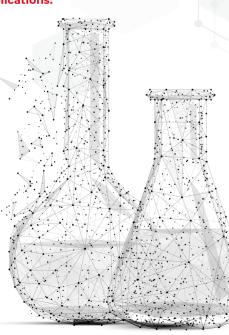
ANTIBIT &

ANTI-STICKING AGENTS AND CRUST-REMOVERS | HA

The anti-sticking agents and crust-removers **HA.ANTIBIT** and **HA.ANTICRUST** are developped for the cleaning and maintenance of tools and all additional devices used in the production of asphalt mixes such as vibratory rollers, dump trucks, compactors rollers and all generally necessary tools for laying down road surfaces.

ТҮРЕ	FUNCTION	DOSAGE	
HA.ANTIBIT BIO	Anti-sticking agent for normal and modified bitumens	To be diluted in water	
HA.ANTIBIT ECO	Anti-sticking agent for normal and modified bitumens	To be diluted in water	
HA.ANTIBIT HS	Anti-sticking agent for normal and modified bitumens	To be diluted in water	
HA.ANTIBIT EM	Anti-sticking agent for normal and modified bitumens	To be used pure	
HA.ANTICRUST MX	Crust-remover for bitumens	To be used pure	

### Field of<br/>applications:Compactors rollers, vibratory rollers, dump trucks.









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### SEALANTS

**Description:** The line of sealants and glues **HA.SIGIL** and **HA.GLUE** is developped to seal joints and slatches from the road surfaces by avoiding progressive degradation, and to firmly anchor on the heavy-moving cones and road signs.

ТҮРЕ	FUNCTION	DOSAGE
HA.SIGILWAY 1K	Monocomponent sealant for joints and cracks	To be used pure
HA.SIGILPLAST	Monocomponent sealant for joints and cracks	To be used pure
HA.GLUEWAY 1K	Monocomponent adhesive for road sign	To be used pure

Field of applications:

Road pavings, bonding of rubber, PVC, De.Fle.Co., lane dividers and raffic cones on road pavings, cement and fiber cement, wood, asphalt mixex, metal and zinc surfaces.











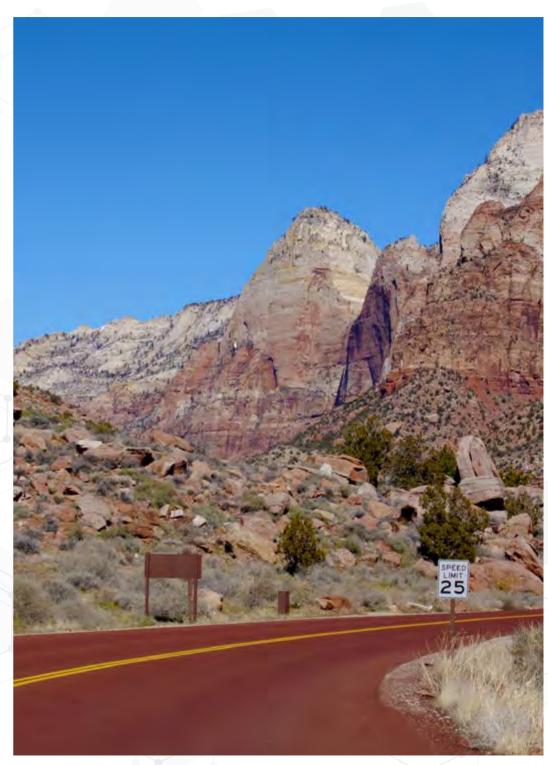
### **PIGMENTS FOR COLORED ASPHALTS**

**Description:** The dyes line **HA.OXID** consists of pigments in powder or granules that are essential for the colouring of special or prestigious road surfaces, having the function of increasing the visibility of the road surface and/or creating effects of urban design.

ТҮРЕ	FUNCTION	DOSAGE
HA.OXIDRED PW	Synthetic iron oxide in powder form for colored asphalt mixes	4,0-6,0% over inerts weight
HA.OXIDRED GR	Synthetic iron oxide in granules for colored asphalt mixes	4,0-6,0% over inerts weight
HA.OXIDPLAST	Plasticizer for colored asphalt mixes	0,2-0,5% over inerts weight

Field of Colored road pavements. applications:









### **MORTARS FOR URBAN DESIGN**

**Description:** 

The line of mortar for the surface treatment **HA.HYDROPAINT** is used to re-finish bituminous and/or concrete substrates by allowing improved visibility floorings. Thanks to the wide variety of colour available on request, it is possible to integrate these products into their contexts, urban or rural.

ТҮРЕ	FUNCTION	DOSAGE
HA.HYDROPAINT U	Water-based mortar for urban surfaces	To be used pure
HA.HYDROPAINT S	Water-based mortar for sports surfaces	To be used pure

Field of Private roads, pedestrian areas, squares, sidewalks, sports areas, cycle paths. applications:









MORTARS FOR URBAN DESIGN | HA.HYDROPAINT



MADE IN ITALY



### ROAD MARKING AND TRACING PAINTS

**Description:** 

The tracing paint line **HA.ROADLINE** for horizontal signage is specific road application. After its rapid drying, it guarantees an excellent and persistent adhesion to the treated substrate, a maximum resistance to abrasion and slippage and excellent resistance to atmospheric and oil agents. It is suitable for reporting and maintenance of existing ones. Available in colour: white, red, yellow, blue, green, orange.

ТҮРЕ	FUNCTION	DOSAGE
HA.ROADLINE	Road divider paints for traffic signs	To be used pure

Field of<br/>applications:Road pavings.











### OUR PRODUCTION SITES IN ITALY:



Vicenza (VI)



Schio (VI)



Arcore (MB)



Silvano Pietra (PV)



### HA GROUP IN THE WORLD:

### A global company

With 1800 employees in more than 30 countries, HA is always close to you:

Belgium China Czech Republic Denmark Egypt Finland France Germany Hungary India Indonesia Italy Japan Malaysia Mexico Netherlands Poland South Korea Spain Sweden Taiwan Thailand

Turkey UK USA Vietnam



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# PRODUCTS and SOLUTIONS to BUILD the FUTURE

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