



Asphalt applications

Our global technology for your local needs

Nouryon

Your trusted provider of optimized local solutions worldwide

We are one of the world's leading specialty chemical manufacturers and its products have served the road industry since the 1940's. We deliver adhesion promoters, emulsifiers, warm mix additives and technical support for the road construction and maintenance industry from our worldwide manufacturing locations and technical service centers. We offer the following to our customers.



Proven high quality products for various asphalt applications



Well-equipped research and technical support laboratories in various parts of the world



Highly skilled technical staff and technically sound Sales & Marketing team dedicated to our asphalt customers



Technical support based on local specifications and local materials



Global manufacturing locations and local stock to deliver products on time to fulfill the needs of our customers

Applications and products

We supply a proven high quality comprehensive range of products for all asphalt applications.

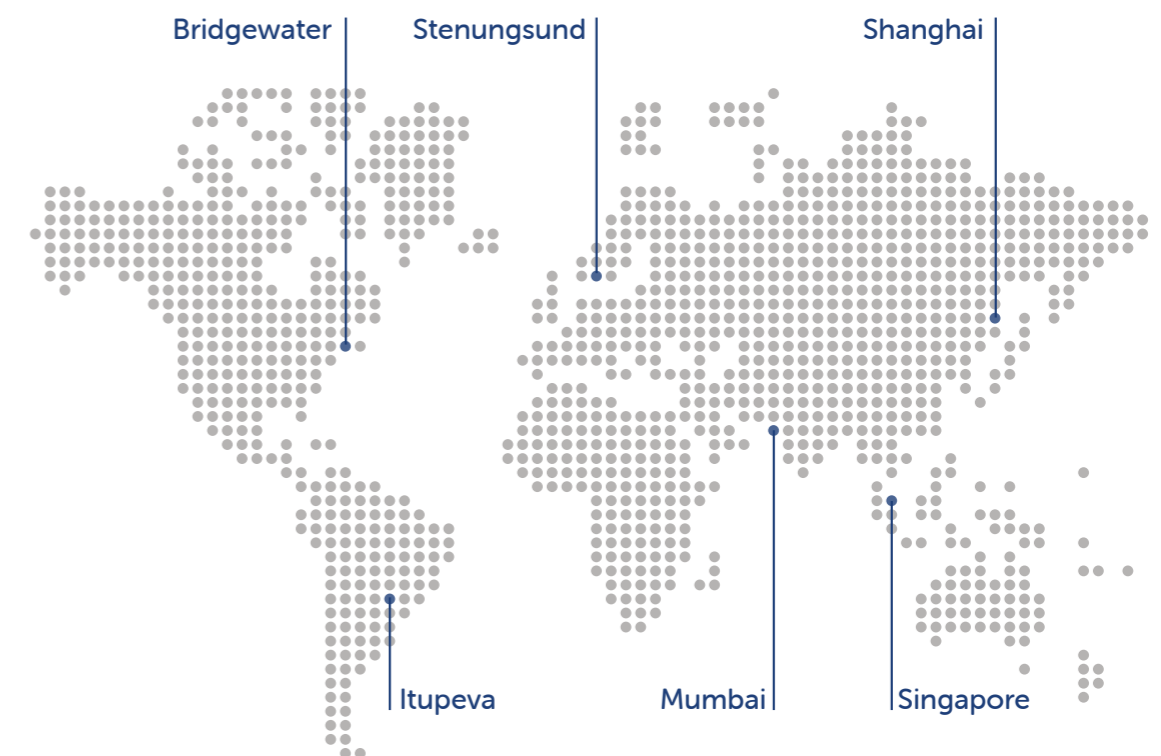
Application	Application type	Key features and benefits
Emulsions and Additives	Emulsion additives	<ul style="list-style-type: none"> Additives to improve emulsion quality of difficult to emulsify bitumen Additives to improve compatibility with SBS in modified binders Easy to handle adhesion promoters for emulsion applications
	Cationic quick set – Slurry/Microsurfacing	<ul style="list-style-type: none"> Complete range of emulsifiers for conventional slurry and microsurfacing Patented emulsifiers used with phosphoric acid to provide quick traffic system in cool weather conditions even with low acid bitumens Products for reactive aggregates and warmer climates
	Cationic rapid set – Surface dressing/chipseal	<ul style="list-style-type: none"> Viscosity building emulsifiers that save bitumen costs Proven products that work with all types of bitumen Value for money solutions
	Cationic slow set – Various applications	<ul style="list-style-type: none"> High quality quaternary ammonium emulsifiers and super stable emulsifiers that can be used in various applications including cold recycling and slow set slurry
	Anionic slow set – Various applications	<ul style="list-style-type: none"> Patented Redicote E-7000 chemistry for anionic slow set emulsions which provides improved emulsion quality and performance
Hot mix/Warm mix	Adhesion promoters/antistrips	<ul style="list-style-type: none"> High performance, heat-stable additives to meet severe demands Active adhesion for warm mix systems Additives that provide value for the money
	Warm mix additives	<ul style="list-style-type: none"> Market-leading performance in terms of compaction and adhesion, ease of handling and value for the money
Cutbacks	Adhesion promoters & Patch mix additives	<ul style="list-style-type: none"> Active adhesion agents for chipseal and foamed bitumen cold mixes Patch mix additives that improve workability and provide active adhesion
Non Paving	Emulsifiers sealcoat additive	<ul style="list-style-type: none"> Proven emulsifiers and additives for sealcoats



Research, technical support and laboratories that provide global coverage

We work with our customers in identifying their needs and solving their problems.

Our fully equipped research laboratories in Sweden and the United States address customers' needs by creating market-driven products and solutions. The specifications for many asphalt applications differ by country and region, as do the materials available for use by our customers. We provide regional technical support according to local specifications because fulfilling our customers' needs remains our top priority. We have fully equipped technical service laboratories with well trained staff in various countries to provide timely, customized technical support.



Global product range



Application	Application type	Products	Key features and benefits	Americas	EMEA	South Asia	China
Emulsion	Emulsion Additive	Redicote AP	• Enhance emulsification of difficult binders and improve compatibility of SBS with bitumen	■			■
		Redicote C-150AP	• Adhesion promoter especially designed to be easily blended with emulsions	■			
	Cationic quick set – Slurry/Microsurfacing	Redicote C-320E	• Emulsifier for phosphoric acid system that works with wide range of binders including low acid. Provides excellent cohesion building suitable for cooler weather and night paving.	■	■	■	
		Redicote C-471	• Good cohesion building, value for the money and can be used in combination with Redicote C-500-1 or Redicote C-450	■		■	
		Redicote C-500-1	• Versatile emulsifier that works with wide variety of aggregates and in hot weather conditions	■		■	
		Redicote 404	• Consistent performance with medium reactive aggregates and high acid bitumen	■	■		■
		Redicote C-450	• Designed for highly reactive aggregates	■		■	■
	Cationic rapid set - Surface dressing/chipseal	Redicote E-4819	• Highest viscosity building in CRS-2 emulsions saving binder costs. Good emulsion quality at lower dosage, suitable for polymer modified emulsions and provides good adhesion.	■		■	■
		Redicote E-9	• Medium viscosity building in CRS-2 emulsions	■	■		
		Redicote EM-44A	• Liquid emulsifier that builds medium viscosity in CRS-2 emulsions	■			
		Redicote E-16	• Liquid emulsifier that builds medium viscosity in rapid set emulsions and provides good adhesion		■		
		Redicote EM22	• Liquid CRS emulsifier for faster break, provides good adhesion and provides good value for the money		■	■	
		Redicote EM24	• Liquid emulsifier that builds high viscosity in CRS-2 emulsions and also provides faster breaking		■	■	
		Redicote EM44	• Liquid emulsifier that builds medium viscosity in CRS-2 emulsions, gives good quality emulsions and efficient in terms of dosage		■	■	■
		Redicote E-4900	• 100% active high viscosity building emulsifier that gives high quality emulsions at low dosage	■		■	
	Cationic slow set - Various applications	Redicote C-580	• 100% active high viscosity building emulsifier that is soluble in acidified water at ambient temperatures	■	■	■	
		Redicote E-11 E	• Excellent emulsion quality at lower dosage and can be used without addition of acid in the soap	■			
		Redicote E-11 HF-1	• Non-flammable version of Redicote E-11 E for safer handling	■			
		Redicote E-4868 NPF	• Cationic super stable proven emulsifier that has wider applicability	■			
		Redicote E-4880	• Super stable emulsifier providing extended workability FDR, plant produced cold mixes and base stabilization	■	■	■	■
Redicote E-7100		• Faster setting for Cold in-place recycling (CIR) with or without cement. Can be used for many applications.	■		■		
Redicote 611		• Water based non-flammable quaternary ammonium emulsifier that can be used as a break retarder		■	■	■	
Redicote E-11		• Excellent emulsion quality at lower dosage and can be used without addition of acid in the soap			■	■	
Redicote E-11 HF		• Non-flammable version of Redicote E-11 for safer handling			■	■	
Redicote E-4875 NPF		• Cationic super stable proven emulsifier that has wider applicability			■	■	
Anionic slow set - Various applications	Redicote E-7000	• Versatile emulsifier that gives a very good quality emulsions, easy to handle and can function both as anionic and cationic. Can be used in many applications.	■	■	■		
	Redicote E-6945	• Co-emulsifier and stabilizer for slow-setting anionic bitumen emulsions	■	■	■		
Anionic rapid & Medium set	Redicote E-62	• Provides high float characteristics to the emulsion residue. Offers lower viscosity and easier storage and handling	■				
Thickener	Alcogum SL-827	• Easy to handle liquid thickeners for anionic emulsions with high temperature stability	■				
	Alcogum L-265	• Easy to handle liquid thickeners for anionic emulsions	■				
Other	Redicote E-95	• Nonionic emulsifier that does not contain alkylphenoethoxylates	■				
	Redicote E-47 NPF	• Nonionic co-emulsifier and wetting agent that does not contain alkylphenoethoxylates	■	■			
Hot Mix/Warm Mix	Adhesion promoters/antistrips	Kling Beta 2914	• Liquid high performance antistrip with active adhesion properties	■			
		Wetfix 312	• 100% active lower odor antistrip that provides the best value for the money	■			
		Wetfix 312R	• 100% active lower odor antistrip that provides the best value for the money				■
		Diamine OLBS	• Liquid product that provides excellent active adhesion. Suitable for soft bitumen mixes.		■		
		Wetfix AP17	• High performance adhesion promoter for hot-mix		■		
		Wetfix BE	• Versatile adhesion promoter. Also suitable for soft bitumen mixes.		■	■	
		Wetfix N422	• Good active adhesion properties. Suitable for soft bitumen mixes and spray applications with cutback/soft bitumen.		■	■	■
		Wetfix BXE	• Adhesion promoter that provides the best value for the money			■	■
		Diamine HBG	• Adhesion promoter with excellent active adhesion properties. Pelletized product for convenient on-site addition.		■	■	
		Wetfix G400	• Environmentally friendly, exceptionally low odor compatible with PPA modified and standard asphalt binders	■			
	Warm mix additives	Rediset LQ-1200A	• Provides the best performance in terms of compaction and as an antistripping additive	■			
		Rediset LQ-1200	• Lower odor product that provides the best performance in terms of compaction and as an adhesion promoter		■	■	■
		Rediset LQ-900	• Compaction aid for hot and warm mixes while providing active and passive adhesion	■	■		
Cutbacks	Adhesion promoters & Patch mix additives	Kling Beta LL	• Additive for patch mixes that provides active adhesion and enhances prolonged workability of the mix	■			■
		Wetfix 312	• Adhesion promoter for various cutback applications with siliceous aggregates that provides the best value for the money	■			
		Diamine OLBS	• Liquid product that provides excellent active adhesion		■	■	
		Diamine HBG	• Adhesion promoter with excellent active adhesion properties		■	■	
Non Paving	Emulsifier Sealcoat Additives	Redicote AP	• Proven additive for sealcoat applications based on clay stabilized emulsions	■			
		Redicote I-249	• Unique additive for water repellency in sealcoat applications based on clay stabilized emulsions	■			
		Redicote E-6945	• Stabilizer that enables the incorporation of clays and other reactive materials in anionic SS emulsions for sealcoats	■			

Global manufacturing locations to fulfill your needs



Our asphalt customer needs on-time delivery of products with consistent quality.

We have production facilities for asphalt products in various countries, distributor network in selected regions and we maintain local stock where it is needed in order to quickly respond to our customer's needs.

Manufacturing

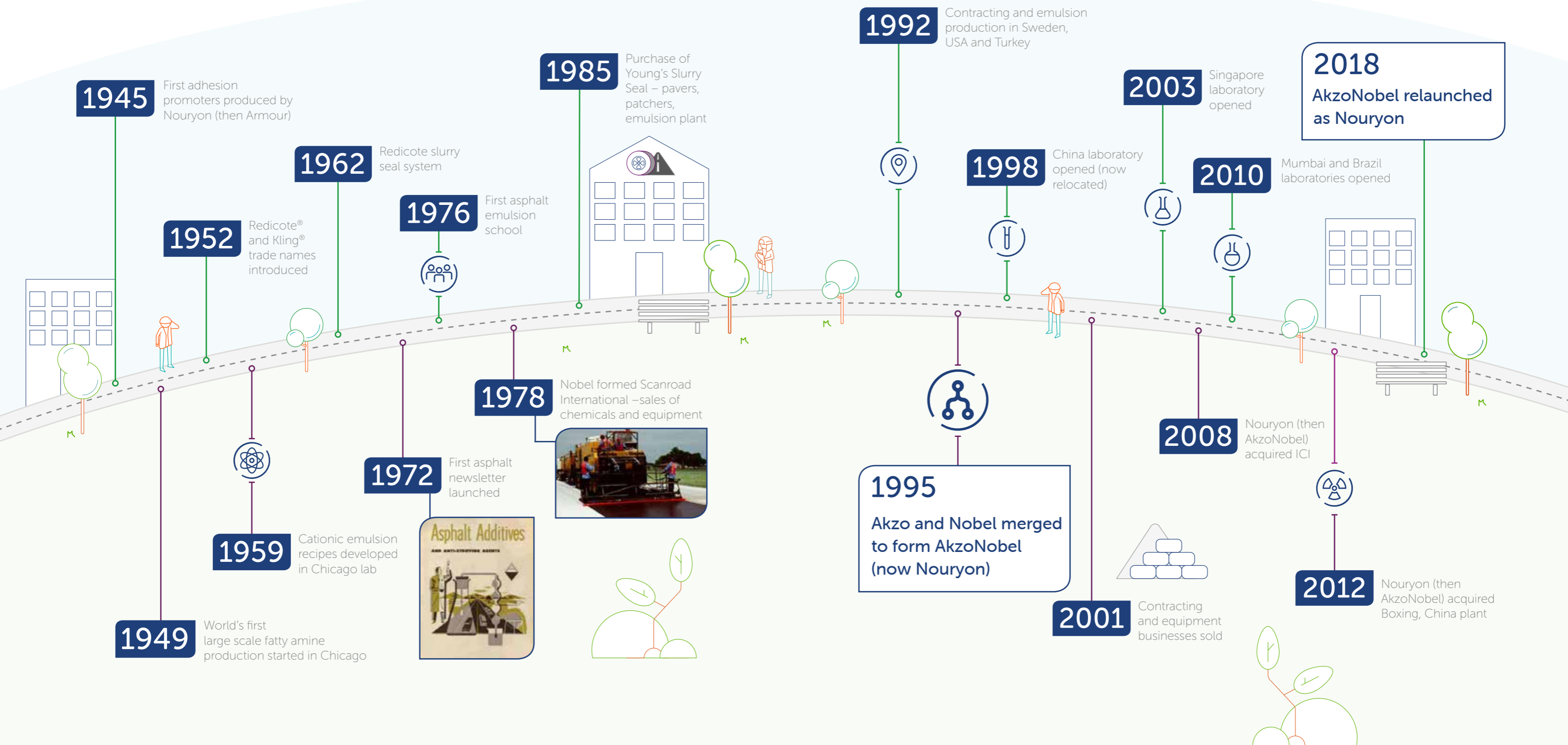
Mons, Belgium
Itupeva, Brazil
Boxing, China
Singapore
Stenungsund, Sweden
Stockvik, Sweden
Chattanooga, USA
Ft. Worth, USA
Houston, USA
Morris, USA

Headquarters

Shanghai, China
Stenungsund, Sweden
Chicago, USA



History of Nouryon Asphalt applications



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Nouryon

Nouryon is a global, specialty chemicals leader. Markets and consumers worldwide rely on our essential solutions to manufacture everyday products, such as personal care, cleaning goods, paints and coatings, agriculture and food, pharmaceuticals, and building products. Furthermore, the dedication of more than 7,900 employees with a shared commitment to our customers, business growth, safety, sustainability and innovation has resulted in a consistently strong financial performance. We operate in over 80 countries around the world with a portfolio of industry-leading brands. Visit our website and follow us @Nouryon and on LinkedIn.

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