



Ortolan

Concrete Release Agents

EXPERTISE
RELEASE AGENTS



Ortolan

Effective separation and protection

Ortolan release agents offer residue-free separation between formwork and concrete together with an immaculate fair face, yet still also comply with the very highest of environmental standards. These are requirements, which can be met with Ortolan release agents. Decades of experience in concrete production and construction combined with the expertise of a global network characterise this MC product range.

The Ortolan product portfolio encompasses highly effective base oils, aqueous emulsions, and waxes and wax emulsions, providing a broad range of choice to ensure the optimal product solution for each area of application. Ortolan is divided into five product categories: **Basic**, **Classic**, **Extra**, **Premium** and **Bio**, each offering its own specific performance profile and application suitabilities to give you the right solution to each set of requirements.

Environmental compatibility

Solvent-based products deliver above-average quality levels in the creation of premium concrete surfaces, but are rather poor performers when it comes to environmental friendliness. The potentially negative effects on employees, and thus the comprehensive protective and safety measures required, mean that practitioners are always looking for less harmful or completely harmless concrete release agents that, preferably, are not required to carry any hazardous substance marking at all.

With solvent-free, low-viscous products from the Ortolan range, you get fast biodegradability combined with a very good concrete surface appearance – solutions that integrate outstanding separation properties and a high-value concrete finish with proven safety in use. And if, due to your specific requirements profile, particularly robust concrete release agents are required, you will still find that solvent-based Ortolan products are the right choice for your needs.

With a comprehensive service and technical expertise, we match our solutions to your requirements, input materials, manufacturing processes and application technology, generating a full range of benefits for your production and your customers:

- Clean separation between concrete and formwork
- Production of aesthetically attractive concrete products and fair-faced concrete surfaces
- Care and protection for the formwork
- Effective corrosion protection
- Outstanding occupational and environmental hygiene
- Precise application equipment
- Comprehensive service provided by our own concrete technologists and application engineers



Release agent	Properties
Ortolan Basic	The Robust One for conventional solutions
Ortolan Classic	The Allrounder for a broad range of applications
Ortolan Extra	The Special One for particularly demanding requirements
Ortolan Premium	The Professional One for high-quality fair-faced concrete surfaces
Ortolan Bio	The Natural One for toughest environmental standards
Spray units	Properties
MC-Pump	Canister and drum spray pump
MC-Spezialspritze	Portable spray unit



The Robust One



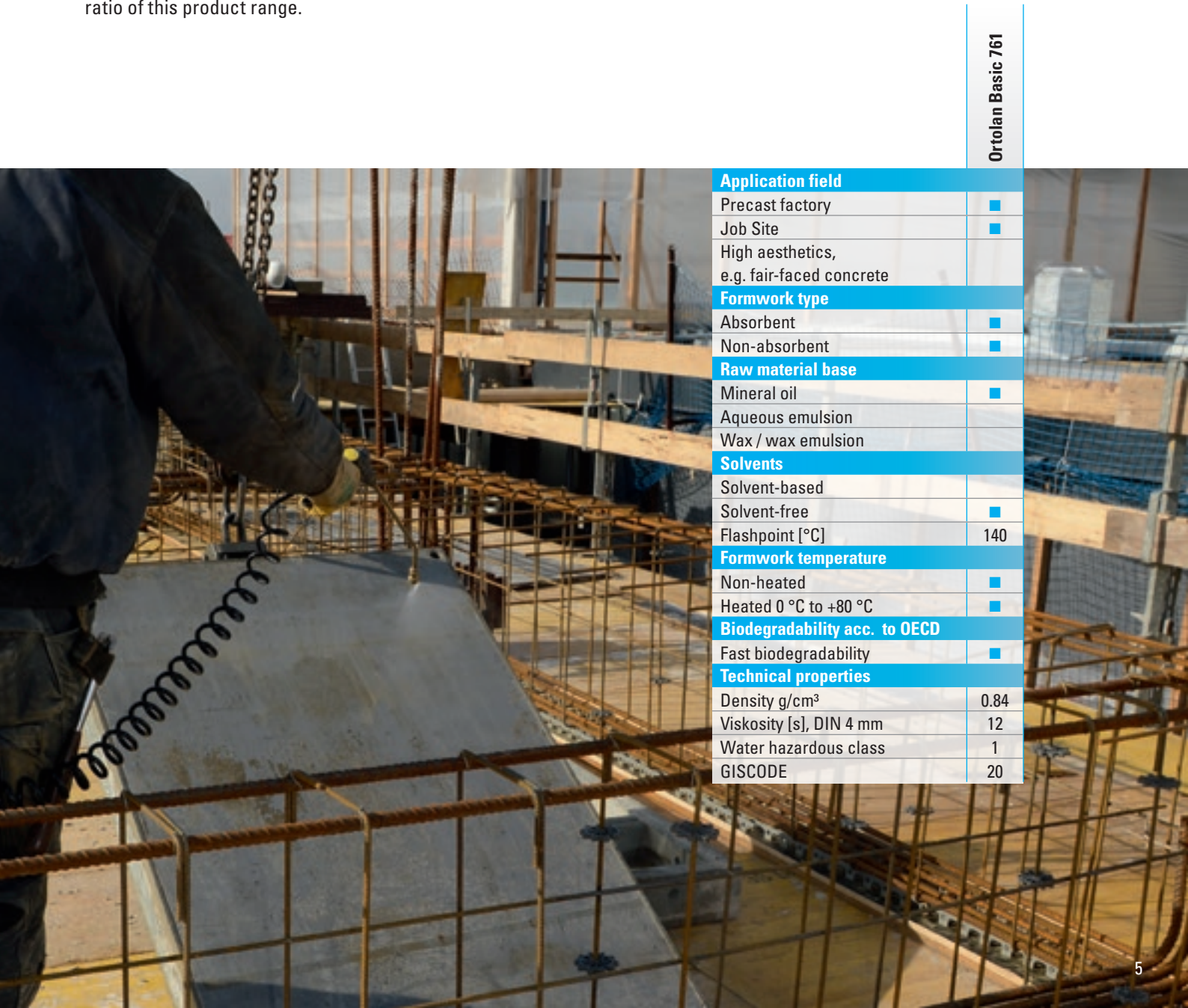
Ortolan Basic

The tough **Ortolan Basic** is ideally suitable for the direct formwork releasing for concrete and reinforced concrete construction. It is designed for the particularly demands on site: Weathering resistance, easy handling and fast biodegradability.

Among a good separating effect and the user-friendliness you can also benefit from the good price-performance ratio of this product range.

Your benefits:

- For absorbent and non-absorbent formworks
- Solvent-free and mild odour
- Biodegradability tested compliant with OECD guidelines



Ortolan Basic 761

Application field	
Precast factory	■
Job Site	■
High aesthetics, e.g. fair-faced concrete	
Formwork type	
Absorbent	■
Non-absorbent	■
Raw material base	
Mineral oil	■
Aqueous emulsion	
Wax / wax emulsion	
Solvents	
Solvent-based	
Solvent-free	■
Flashpoint [°C]	140
Formwork temperature	
Non-heated	■
Heated 0 °C to +80 °C	■
Biodegradability acc. to OECD	
Fast biodegradability	■
Technical properties	
Density g/cm³	0.84
Viscosity [s], DIN 4 mm	12
Water hazardous class	1
GISCODE	20

The Allrounder

Ortolan Classic

The extensive range of applications for which **Ortolan Classic** is suitable makes it a particularly robust, universal release agents. Through the combination of low-viscous base oils and separating-effective substances, this product family can be used both on site and in the precast concrete factory. Ortolan Classic is a solid performer when it comes to separating the concrete from the formwork. All requirements in respect of surface quality and formwork cleanliness are met. The Classic range is biodegradable and satisfies all relevant environmental regulations.

Your benefits:

- Low viscosity
- For absorbent and non-absorbent formworks
- With and without corrosion protection
- Biodegradability tested compliant with OECD guidelines

	Ortolan Classic 711	Ortolan Classic 725	Ortolan Classic 731
Application field			
Precast factory		■	■
Job Site	■	■	
High aesthetics, e.g. fair-faced concrete	■		■
Formwork type			
Absorbent	■	■	
Non-absorbent	■	■	■
Raw material base			
Mineral oil	■	■	■
Aqueous emulsion			
Wax / wax emulsion			
Solvents			
Solvent-based			■
Solvent-free	■	■	
Flashpoint [°C]	141	141	40
Formwork temperature			
Non-heated	■	■	■
Heated 0 °C to +80 °C	■		■
Corrosion protection			
		■	
Biodegradability acc. to OECD			
Fast biodegradability	■		
Technical properties			
Density g/cm³	0.85	0.84	0.83
Viscosity [s], DIN 4 mm	14	14	11
Water hazardous class	1	1	2
GISCODE	20	20	60

The Special One

Ortolan Extra

For those who achieve more: **Ortolan Extra** speciality concrete release agents meet elevated requirements with regard to the appearance of the concrete surface. A variety of base oils, pasty waxes and wax emulsions form the basis of the formulations used in this product range.

The wax paste Ortolan Extra 791 is particularly suitable for vertical surfaces and complex detail designs, delivering a high level of fair-faced concrete quality every time. And with its high content of corrosion inhibitors, Ortolan Extra 732 also serves as a rust removal agent for steel formworks.

Your benefits:

- Liquid and pasty products
- For absorbent and non-absorbent formworks
- With and without corrosion protection
- High weathering resistance



	Ortolan Extra 721	Ortolan Extra 732	Ortolan Extra 741	Ortolan Extra 772 KS	Ortolan Extra 791	Ortolan Extra 792
Application field						
Precast factory	■	■	■	■	■	■
Job Site				■	■	■
High aesthetics, e.g. fair-faced concrete		■	■	■	■	
Formwork type						
Absorbent	■				■	■
Non-absorbent	■	■	■	■	■	■
Raw material base						
Mineral oil	■	■	■			
Mineral oil emulsion				■		
Wax emulsion						■
Wax paste					■	
Solvents						
Solvent-based	■	■	■			
Solvent-free				■	■	■
Flashpoint [°C]	62	40	41	—	140	—
Formwork temperature						
Non-heated	■	■	■	■	■	■
Heated 0 °C to +80 °C	■	■	■	■	■	
Corrosion protection						
		■		■		
Biodegradability acc. to OECD						
Principal biodegradability				■		
Technical properties						
Density g/cm³	0.87	0.83	0.81	1	—	0.99
Viscosity [s], DIN 4 mm	14	12	12	10	—	20
Water hazardous class	2	2	1	1	1	1
GISCODE	20	60	60	5	10	15

The Professional One

Ortolan Premium

The number-one among concrete release agents, **Ortolan Premium** contains special high-performance process oils for high-end surfaces up to fair-faced concrete class SB4. This easy-to-spray premium release agent has been especially developed for non-absorbent formworks. Rust-inhibitors protect the smooth steel formwork surfaces from oxidation. The particularly mild odour and easy handling ensure user-friendly application. With Ortolan Premium, defects such as porosities and blow holes can be assigned to the past.

Your benefits:

- Low viscosity
- Exceptionally high-quality fair-faced concrete
- High level of corrosion protection

Ortolan Premium 702

Application field	
Precast factory	■
Job Site	■
High aesthetics, e.g. fair-faced concrete	■
Formwork type	
Absorbent	
Non-absorbent	■
Raw material base	
Mineral oil	■
Aqueous emulsion	
Wax / wax emulsion	
Solvents	
Solvent-based	■
Solvent-free	
Flashpoint [°C]	34
Formwork temperature	
Non-heated	■
Heated 0 °C to +80 °C	■
Corrosion protection	
	■
Technical properties	
Density g/cm ³	0.80
Viscosity [s], DIN 4 mm	10
Water hazardous class	1
GISCODE	60





The Natural One

Ortolan Bio

Offering the highest level of environmental compatibility, **Ortolan Bio** is based on aqueous emulsions that are particularly eco-friendly and sustainable. Ortolan Bio range is fast biodegradable and meets the test criteria according to OECD guidelines. These low-viscous, solvent and mineral-oil-free concrete release agents ideally combine good separation performance with light, bright, fair-faced concrete surfaces. Ortolan Bio is based on a resource-efficient technology and is particularly user-friendly. So if you want effective separation, protection and formwork care, while also enhancing environmental protection, Ortolan Bio is your answer!



Your benefits:

- Based on renewable raw materials
- For absorbent and non-absorbent formworks
- For a high level of occupational and environmental hygiene
- With and without corrosion protection
- Biodegradability tested compliant with OECD guidelines

	Ortolan Bio 755	Ortolan Bio 771	Ortolan Bio 780	Ortolan Bio 780 KS
Application field				
Precast factory		■	■	■
Job Site	■	■	■	■
High aesthetics, e.g. fair-faced concrete	■	■	■	■
Formwork type				
Absorbent	■	■	■	
Non-absorbent	■	■	■	■
Raw material base				
Mineral oil				
Plant oil emulsion	■	■	■	■
Wax / wax emulsion				
Solvents				
Solvent-based				
Solvent-free	■	■	■	■
Flashpoint [°C]	—	—	—	—
Formwork temperature				
Non-heated	■	■	■	■
Heated 0 °C to +60 °C		■		■
Corrosion protection				
				■
Biodegradability acc. to OECD				
Fast biodegradability	■		■	
Technical properties				
Density g/cm³	1.03	1.03	0.99	1.00
Viscosity [s], DIN 4 mm	10	11	10	10
Water hazardous class	1	1	1	1
GISCODE	5	5	5	5

Application

Separation, protection and care

The visual appearance of a concrete surface is an essential aspect governing its overall quality. Consequently, manufacturers of both structural components and precast concrete need to ensure they can produce to the highest appearance specifications.

The achievement of an immaculate concrete surface is essentially governed by the technology of the concrete formulation and the technical design of the processing and application operations. In addition, there are a number of external factors such as the mix of climatic influences – external temperature, air humidity and exposure to the sun – and the methods applied in curing and protecting the finished surfaces that also influence the final result.

Concrete technology

Because of the many and wide-ranging requirements that a component and its input materials have to satisfy, optimisation of the concrete technology is often an essential first step. And again, you need look no further than MC for this service. We offer a tight-knit network of laboratories and application engineers to ensure constant know-how transfer to the point of use. So wherever you are in the world, we are able to support you in the development of speciality concretes to suit your specific needs.



Application

When using concrete release agents, it is important to ensure that the application technology and spray systems are fit for purpose. Essentially, you want to achieve a thin and even film on the formwork surface. Ortolan release agents perform to their full potential where

- all rust and concrete residues have been completely removed,
- the release agent has been sprayed on in a uniform, thin-film layer,
- the formwork has been squeegeed and/or polished with a rag or nonwoven fleece,
- concrete pouring takes place immediately after the formwork has been prepared.





Spraying Equipment

MC-Pump and MC-Spezialspritze

Concrete release agents need especially designed spraying equipment for them to be properly applied. It is particularly important that a spray pressure of at least 4 bar is maintained. At lower pressure levels, the spray pattern achieved is generally uneven.

We offer a comprehensive range of equipment and devices to ensure that you are ideally prepared. Our canister sprayer **MC-Pump 1** and drum sprayer **MC-Pump 2** ensure the concrete release agents can be applied from either drum without problem. The two systems are electrically operated and offer easy controllability. Strenuous, manual pumping is thus no more needed. The integrated pressure control valve ensures that the pressure is kept constant to create a consistently uniform spray pattern. The spray lance and the hose length of 20 metres provide for a large working radius, avoiding the problem of having to carry or push the pump station to a new position. There is a selection of flat jet nozzles to ensure perfect results across a wide range of temperatures.

The portable pressure spray unit **MC-Spezialspritze** ensures reliable application in jobs where a degree of mobility is required. With its compact dimensions and manual operation, you can work independently of electrical power and supply lines. Your working radius is unlimited. The flat spray nozzle provided again ensures a uniform spray pattern.

Your benefits:

- Easy handling
- Constant pump performance
- Uniform spray pattern
- High operating convenience
- Easy care and cleaning



Canister sprayer MC-Pump 1



Drum sprayer MC-Pump 2



Mobile spray unit MC-Spezialspritze

Ortolan

Concrete Release Agents

- Clean formwork release
- Outstanding surface quality
- Effective care and protection of the formwork
- For absorbent and non-absorbent formwork
- With and without corrosion protection
- Environmentally compatible

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