Caramba Super multi-purpose spray



Caramba Super - The original multi-purpose spray

Rust penetrator, lubricant, contact spray, corrosion protection, cleaner. Excellent lubricating capability at high pressure (VKA value: 1.900N). High liquid displacement and good corrosion protection. Temperature-resistant from -40 °C - +180 °C. Without solids and silicone, no resinification, good penetration characteristics.

Contents ml		69820	
500	Aerosol can		101
5000	Canister	#	102









69823

Caramba MoS₂ Rust Penetrator



Rust penetrator, lubricating and penetrating oil.

Good lubricating capability at high pressure (VKA value: 1.200N). Temperature-resistant from -40°C -+ 450°C, suitable for ultra-high vacuum. Perfect lubrication for dry conditions, silicone-free.



69823

69826

Caramba Express contact spray



Solves humidity-caused failures of the ignition system and in electrical systems. Very good and consistent cleaning characteristics. Removes and displaces humidity. For steel, iron, light metal, and plastics. Perfect penetration characteristics for good results. Temperature-resistant from -50°C - +180°C.

Contents	69826	
ml		
500		101



69826

69829

Caramba Aktiv leak detector spray



Reliable determination of leaks on gas and air-pressure pipes. Reliable and quick diagnosis thanks to acute frothing. Suitable for all gas installation companies and test facilities. PH-neutral and suitable for all seals used in installation work. Nonflammable, will not react with gases or cooling agents. Temperature-resistant from -15 $^{\circ}$ C - +50 $^{\circ}$ C. DVGW approval in accordance with DIN 14291. Not suitable for lines that conduct oxygen.



69829

Contents	69829	
m	I	
400		101

69832

Caramba High-Performance Silicone Spray



Multi-purpose lubrication and care product for metal, plastics, and rubber. Temperature-resistant from -30°C - +200°C, clear and low odour, non-staining. High resistance against water in order to prevent icing up. Approved for the use in food-handling areas.

= partly extent in stock

Contents	69832	
ml		
500		301



69832



Caramba high-performance PTFE spray



Multi-purpose lubrication and protection product with synthetic basis. Excellent dry lubricating and emergency running characteristics, excellent lubricating capability at high pressure (VKA value: 1.600N). Resistant against chemicals, not electro-conductive, silicone-free. Temperature-resistant from -30°C -+250°C, suitable for all atmospheric conditions (even vacuum), high resistance against water in order to prevent icing up.



Contents 69833 500 101

69835

Caramba Rasant high-performance rust penetrator



Very good penetration characteristics, will loosen heavily rusted metal parts. Suitable for glue remains, dirt crusts, and resinification, silicone-free,



69835

69833

Contents ml	69835	
500		101

69838

Caramba high-performance welding protection spray



Protection against weld spatter, prevents workpiece damage - non-flammable propellant gas for safe welding in cavities. Perfect application for arc and inert gas welding of steel, aluminium, and Nirosta. Tested in compliance with DIN 8572.



69838

Contents	69838	
400		101

69841

Caramba zinc spray (dull grey)



Long-lasting corrosion protection for metallic surfaces. Galvanic corrosion protection, quick-drying, very good conductivity for spot welds. Extraordinary corrosion protection (more than 1140 h in salt spray test in compliance with DIN EN ISO 9227). Can be painted over, temperature-resistant up to +600°C. Dried coating contains over 99% high-purity zinc. Dust-dry after approx. 8 minutes, dry to the touch after approx. 20-30 minutes.



69841

69841 Contents 500 101

69842

Caramba zinc spray (bright aluminium)



Long-lasting corrosion protection for metallic surfaces and for reworking hot-galvanised surfaces. Galvanic corrosion protection, quick-drying, very good conductivity for spot welds. Good corrosion protection (more than 144 h in salt spray test in compliance with DIN EN ISO 9227). Wear-resistant and can be painted over. Temperature-resistant up to +200 °C. Dust-dry after approx. 8 minutes, dry to the touch after approx. 20-25 minutes.



69842

Contents	69842	
ml		
500		101



Caramba high-performance copper paste/copper spray



Protective and sliding coating, humidity-resistant. No sintering, seizing up, scaling, or fusing. For assembly lubrication of pipe, flange, exhaust, combustion chamber threaded unions etc. Good lubrication effect and adhesion force even at high pressures (VKA value in accordance with DIN 51350: 5.000N). Effective protection against wear and corrosion. Silicone and acid-free, no resinification. Temperature-resistant from -30°C - +1.100°C. Lubrication of screw joints, plug connections, and

flanges, which are subjected to high temperatures.

Not suitable for ABS and ESP systems.





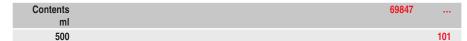
500 69847

Contents ml 200

Caramba Intensiv heavy-duty cleaner



Quickly and thoroughly loosens and removes crusted and resinified dirt, oil, fat, and other residues. Quick-drying and residue-free evaporation. Noncorrosive, silicone-free. Contains acetone. For cleaning and degreasing machine parts, surfaces, steel ropes, gears, etc.





69847

69844 301

69848

Caramba Aktiv stainless steel cleaner



Cleaning and protection for all metallic surfaces inside and outside. Removes contamination, lime spots, flash rust, greases, oils and resins on stainless steel, aluminium, copper, and brass, optimal start-up protection, anti-static effect, NSFtested, -approved for the food processing industry.

Contents 69848 ml 500 101



69848

69849

Caramba Intensive Brake cleaner



Cleaning of brakes and other car parts. Quick-drying and residue-free evaporation. Very good cleaning characteristics, free of acetone. Neutral towards rubber, plastics, and lacquered surfaces. Siliconefree and degreasing.

Contents	69849	
ml		
500		301



69849

69846 **Magnetic Aerosol Can Tray**

Type

- 6 strong magnets
- Magnetic holding force approx. 4 kg
- 10 bores Ø 19 mm in the floor

Use

For example, 3 aerosol cans with Ø 73 mm.

Dimensions	69846	
mm		
210 x 75 x 70		101



Info

Multi-function spray WD-40 Classic & Smart Straw™ cat.-no 69850



WD-40 is silicone-free and resin-free. It infiltrates layers of rust, loosens seized mechanisms, and seized vehicle and machine parts. Removes stubborn contamination, dispels moisture from electrical contacts and prevents stray currents. In addition WD-40 leaves behind a thin protective film that prevents moisture and rust from forming on metal parts.

The innovative WD-40 Smart-Straw™ sprays perfectly in two ways, thanks to the innovative flip-up 3. Loosens rusted parts and seized straw on the spray head.

For pin-point spraying, e.g. for use as a contract spray, or for care of lock cylinders, simply flip up the straw. For surface application, e.g. cleaning rims, or caring for garden tools, simply flip the straw down.

With the innovative WD-40 Smart-Straw™ bothersome searching for the straw and fitting it on are dispensed with. One hand always stays free.

WD-40 Smart Straw - The revolution in aerosol cans!

Contents

ml

300

400

500

With the 5-fold active formula

1. Cleans and protects

- Loosens stubborn contamination, oil, grease and adhesive residues so they can be easily removed
- Leaves behind a maintaining protective layer

2. Eliminates squeaks

- For optimal operation of moving parts
- Eliminates and prevents squeaks and creaking sounds
- Without silicone, consequently no bonding

mechanisms

- Penetrates lavers of rust
- Quickly loosens jammed metal parts, screws and nuts

4. Protects against corrosion

- Leaves behind a thin protective film that prevents moisture and rust from forming on metal parts

5. Displaces humidity.

- Keeps electrical and electronic mechanisms free



Flip up the straw for pin-point spraying



For surface application, simply flip it down

69850

Multi-Function Sprays WD-40



Туре

- Rust penetrator.
- lubricant.
- contact spray,
- cleaner.
- corrosion protection, all in one!

69850 202

Aerosol can, contents 400 ml.

69850 301-302 **Smart Straw can**

Type

Permanently integrated spray straw on the spray head. For pin-point spraying, simply flip up, for surface applications flip down. Ideal for fast tasks without bothersome searching or fitting on.

69850 203

Container, contents 5 litres.

69850 204

Hand sprayer

Perfect for dosing and distributing WD-40. Without Contents. Holding capacity 500 ml. In supplementation to the 5-litre canister.

69850

301

202

302

203

204

69850 202



69850 302

69850 203

69850 204





69855

Smart Straw can

Smart Straw can Canister

Hand sprayer/atomiser

Aerosol can

BALLISTOL Universal Oil

Contents

Litre



Multi-purpose use. Forms an alkaline protective film on metals, neutralises sweat and other acidic residues which promote rust. Due to its low surface tension and incredible creep capacity, even the most acute angles and finest cracks in the metal are reached. Resin-free and acid free, age-resistant, biologically degradable and safe for the environment.

Absolutely skin tolerance and food grade.

	Contents ml	69855	
Aerosol can	200		101

Use

When working with automobiles, in trade and industry, e.g. as conserving and protecting agent for measuring instruments and all kinds of tools. Perfect for storing injection moulds and parts and for storing and protecting sensitive machinery. Prevents finger prints and corrosion. Also suitable for maintaining wood, plastics, and leather.





69855





www.hhw.de Fax order hotline: +49 6204 739-1217



ergo:

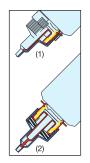
The modern glue technology has become a secure and economical joining method. High-quality glues for multi-purpose applications.

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	Wood/leather	Balsa/cork	Metal	ABS	PVC	PMMA	GFK	PE/PP/POM/	TPO/TPE	Rubber
								PTFE/PA12		
Wood/leather	5011	5039	5011	5011	5011	5889	5011, 5039	5889+5150	5011+5150	5300, 5925
Balsa/cork	5039	5039	5039	5039	5039	5889	5039, 5925	5889+5150	5011+5150	5300, 5925
Metal	5011	5039	5039, 5889	5889, 5925	5925	5889	5889	5889+5150	5011+5150	5925
ABS	5011	5039	5889, 5925	5950	5300	5889	5011, 5300	5300, 5889+5150	5300, 5889+5150	5300, 5925
PVC	5011	5039	5925	5300	5300	5889	5011, 5300	5300, 5889+5150	5300, 5889+5150	5925
PMMA	5889	5889	5889	5889	5889	5889	5889	5889+5150	5889+5150	5011
GRP	5011, 5039	5039, 5925	5889	5011	5011	5889	5011, 5300	5889+5150	5889+5150	5925
PE/PP/POM/PTFE/PA12	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5925+5150
TPO/TPE	5011+5150	5011+5150	5011+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5925+5150	5925+5150
Rubber	5925	5925	5925	5925	5925	5011	5925	5925+5150	5925+5150	5925
Silicone rubber	-	-	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150

Turn and dose closure

The patented rotatable proportion lock is a special feature of ergo.® glue and offers many advantages:

- one-hand operation opening and closing with one hand, the other hand can handle the components.
- no clotted closure when closing, the nozzle is simultaneously cleaned and closed.
- micro-dosage the amount of glue coming out of the opening depends on how far the closure is opened.
- one-part bottle bottle and proportion lock are one piece, no more losing the sealing cap.
- (1) = closed,
- (2) = open.



Info

Cyanacrylate Instant Adhesives

ergo:

ergo.® Cyanacrylate instant glues are one-component products based on cyanacrylic acid esters, which harden when exposed to air humidity. ergo.® Cyanacrylates are mainly used for gluing jobs with plastics, elastomers, and metals. The main advantages of these up-to-date glues are hardening speed, ease of use and high mechanical strength of the bond. In principle, ergo.® cyanacrylate glues can be used from -55 - +120 °C (depending on the type).

Safety advice:

Vapours of cyanacrylate can irritate mucous membranes and eyes. Therefore, it is advisable to ensure good ventilation or exhaustion in the work area. Also, protective gloves (not cotton) and goggles should be worn.

Cyanacrylate glues together skin and eyelids within seconds. Keep out of reach of children. Contact us to request the appropriate safety data sheet and technical sheet. Please heed the warnings on the containers.

Info

69861 SmartPen®

ergo:

Clever gluing with SmartPen®.

Precise and perfect:

With the SmartPen you effortlessly bond with pin-point precision and in the right dose. In combination with our twist and proportion lock, it makes all gluing jobs quick, easy, and efficient. With a touch of the hand!

Clever gluing. Unparalleled precision and convenience. SmartPen®.



eng/OP

69860 - 69861

ergo: Cyanacrylate Second's Action Glues

ergo:

69860 101 + 69861 101 ergo.® 5011 Universal

Type

Quick-hardening standard glue of medium viscosity for different applications: Plastic, rubber, metal, fabric, leather, wood, ceramic, etc. NSF approval.

69861 101

Type

With SmartPen®.

69860 102

ergo.® 5039 Universal-Gel

Type

This second's action gel is characterised by its perfect flowing characteristics. It is perfect for vertical surfaces, larger workpieces or porous, absorbing materials: wood, cloth, cork, leather, plastics, ceramics etc.

69860 203 + 69861 103 ergo.® 5925 Elastomer Type

This glue has a low viscosity and is quick-hardening. It is suitable for almost all standard applications on plastics, elastomers and metals, under normal conditions. NSF approval.

69861 103

Type

With SmartPen®.

69860 204

ergo.® 5210 Metal

Type

Glue of medium viscosity, highly impact and vibration-proof. High resistance against humidity, climate change and solvents. Slow hardening. Especially suitable for metal-plastic connections.

69860 107

ergo.® 5100 Activator

Type

Quickens the hardening process. For use with porous, inactive (acidic), nonpolar surface or large gaps. Apply the product on one side prior to applying the glue (on the porous, inactive surface). 69861 106

ergo.® 5014 multi-purpose (high viscosity) Type

particularly suitable for repairs.

With SmartPen®. Multi-purpose glue with high viscosity. Suitable for porous and uneven surfaces. Thanks to its good bridging characteristics this glue is perfect for imprecise gluing jobs. This makes it



69860 107





Туре	Contents g	Contents ml	69860		69861	
5011 Universal	20	-		101		
5011 Universal with SmartPen	30	-				101
5039 Universal gel	20	-		102		
5925 Elastomer	20	-		203		
5925 Elastomer with SmartPen	30	-				103
5210 Metal	20	-		204		
5014 Universal with SmartPen	30	-				106
5100 Activator	-	150		107		

Info

Anaerobic Adhesives and Sealing Compounds

ergo.® Anaerobic glues and sealants are liquid, one-component products, which harden when exposed to vacuum and metal surfaces. Therefore, they can only be used for gluing metals. ergo.® products are available in different strength classes and therefore ensure reliable bonds of the desired strength without additives. Setting can be accelerated, through heat and/or addition of the activator.

Safety advice:

In case of skin contact, at once wash thoroughly with soap and large amounts of water and see a physician. Contact us to request the appropriate safety data sheet and technical sheet. Please heed the warnings on the containers.

69865

ergo: The anaerobic glue for securing joints

ergo:

69865 104-105

ergo.® 4052 thread-lock, medium strength.

Type

Excellent media and heat resistance. Setting at low temperatures is even possible without activator. NSF and DVGW approval.

Use

Suitable for stainless, passivated, and galvanised screws. Thanks to its higher viscosity, the glue can also be applied to larger gaps.

69865 106-107

ergo.® 4101 thread-lock, high strength.

Type

High-strength connection on heavily-stressed thread and cylindrical parts. Medium viscosity permits universal use. Increased media resistance. NSF approval.

Use

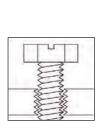
Fixing pin bolts, ball and roller bearings in sliding seats. Especially suitable for heavy-duty screw connections.

Contents 69865 Type 50 4052 medium-strength 104 250 4052 medium-strength 4101 high-strength 50 4101 high-strength 250 107

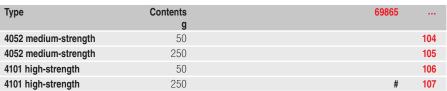
Note:

ergo.® supporting products for anaerobic glues see cat.-no. 69875.

69865 104-105







ergo: The anaerobic glue for sealing

ergo:

Note:

ergo.® supporting products for anaerobic glues see cat.-no. 69875.

69866 101

ergo.® 4202 Hydraulic seal.

Type

Medium-strength product for sealing cylindrical and conical threaded connections to R 3/4 inch. Very good resistance against hydraulic liquids.

Use

For sealing all pneumatic and hydraulic fittings. For small fittings of all kind, up to cracking pressure.

69866 102+112

ergo.® 4207 Pipe thread seal universal. Type

Neutral taste against water, drinks etc. Quick hardening even at temperatures below 0° C. Seals immediately at low temperature. Resistant against natural gas. DVGW approval, BAM approval.

Seals all tapered or cylindrical pipe threads up to R 3 inch, e.g. in sprinklers and gas piping.

69866 103

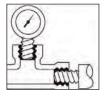
ergo.® 4253 Surface seal universal. Use

Quick-hardening, slightly flexible. Especially suitable for inactive materials. Thixotropic, therefore easy dosing, at the same time, good rigidity after application. NFS approval.

69866 101



Туре	Contents	69866
	g	
4202 Hydraulic seal	50	101
4207 Pipe thread seal	50	102
4207 Pipe thread seal	250	112
4253 Surface seal	50	103



69867

ergo: The anaerobic glue for fastening

ergo:

Note:

ergo.® supporting products for anaerobic glues see cat.-no. 69875.

69867 101

ergo.® 4401, Joints, medium tight.

Use

For mounting bearings in bushings or wheels on axes. Replaces mechanical retainers.

4401 Joint connection medium-strength

4430 Joint connection high-strength

4453 Joint connection heat-resistant

69867 202

ergo.® 4430, Joints, very tight.

Type

Very good hardening even when applied to passive metal surfaces. High strength when applied to cylindrical parts, such as bushings, bolts, gear wheels. Protects metals against corrosion.

NSF approval.

Use

Contents

50

50

50

For mounting shafts, bearings, bushings, sleeves, gear wheels etc. in the state they are delivered.

69867 106

ergo.® 4453, Joints, heat resistant.

Fast-hardening, high-strength and heat resistant product. Good resistance against acids, alkalis and water. KTW and DVGW approval, BAM approval. NFS listed.

For mounting cylindrical live bushings in motor blocks and bearing fixtures in heat ovens. Good adherence to smooth surfaces.









69875

ergo: Supporting Products for Anaerobic Glues

ergo:

Type

69875 100

ergo.® 4900 Activator.

Type

For use in unfavourable hardening conditions. These could be, e.g., inactive surfaces, very large gaps, extreme roughness. ergo.® 4900 facilitates, accelerates or enables complete setting of the adhesive in these cases. The Activator can be applied prior to applying the glue (on one side) or after (spray on the whole surface).

Note:

The activator insert reduces the achievable final strength by approx. 15%.

69875 101

ergo.® 9190 multi-purpose cleaner.

Use

With this special solvent mixture dirty or oily surfaces can be cleaned without leaving any residues. Perfect for the pre-treatment of surfaces.

69875 100





69875 101

Туре	Contents	69875	
	g		
4900 Activator	100	#	100
9190 multi-purpose cleaner	500	#	101



ergo:

Type

High-quality silicone sealant. Very temperature-resistant (up to +315 °C). Extreme resistant against chemicals. Hardening without acidic substances, therefore aluminium, iron and steel-friendly.

Use

Permanently elastic glue and sealants in electrotechnical applications, automotive engineering, toolmaking, machine construction and precision

69878 101-103

Type

In pressurised can: The silicone evenly flows from the pressurised cans. Thanks to the ingenious design of the double-wall pressurised can, the silicon does not come into contact with the propellant (environmentally compatible air mixture, and thus it remains ready for use for a longer period of time.

69878 104

Type

In the Euro-cartridge.

	Colour	Contents	Contents	69878
		g	ml	
Pressurised can	Black	256	-	101
Pressurised can	Transparent	208	-	103
Euro-cartridge	Transparent	332	310	104

69878 101-103



69878 104



69880 Silicone (acetate)

Type

Elastic remaining silicone sealant, avoids fungal growth, weather-resistant.

Use

Suitable for applications in accordance with IVD leaflet no. 3.

	Colour	Contents ml	69880	
Cartridge	transparent	310		101

69880



69882

Silicone (neutral) can be painted over

Type

Elastic remaining silicone sealant, inhibits fungal growth. Excellent resistance to weather, ageing, and UV-radiation. Neutral cross-linking, i.e. silicone can be painted over in accordance with DIN 52452. In compliance with DIN 18545 part 2, stress group D and DIN 18540. LEED® conformant IEQ-Credits 4.1 adhesives and sealants.

Suitable for applications in accordance with IVD leaflet no. 7 and 9.







	Colour	Contents ml	69882	
Cartridge	transparent	310		101

69890

Applicator Guns

69890 101

Type

Rugged serrated plunger for professionals, hardened plunger, black.

Use

For 310 ml cartridges.

69890 102

Type

Rugged smooth plunger with open end, orange.

For 310 ml cartridges.

69890 103

Use

For 400 ml silicone foil bags and 310 ml cartridges.

Note:

Air-pressure operated guns available on request.



6989)
	101
	102 103
	103

