

# INVICTO

#### THE UNCONQUERABLE SOUL

Protecting the highest value in life: your invaluable life

#### THE PROTECTION BRAND INVICTO

The unconquerable soul – this idea is the base of the armouring concept. A consequent state of the art armouring product. A world premiere, launched in 2020.

The innovative INVICTO Shelter Cell bases on a self-contained, self-supporting, bolted structural cell. The moulded components used consist mainly of hot formed armour steel plates and composites. Moreover, 3D printed protection elements are being used as an innovative world premiere.



#### EXPERTO CREDITE

INVICTO is an armoured vehicle with blast protection at the level of a luxury state limousine, fully certified by the accredited German "Beschussamt".



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3D printed protection elements

Complete glazing made of bulletproof glass

Fabric structures, fibre structures, ceramic and metallic composites

Hot formed armour steel plates including bullet resistant supply ducts

Chassis adaptation (springs, torsion bars, shock absorbers, axle components)

Reinforced high-performance brakes (front and rear axle)

20" heavy duty wheels with increased load capacity and runflat system

#### THE INVICTO SHELTER CELL

Self-contained, self-supporting, bolted structural cell

Development from the inside to the outside

Zero joint design

Building the body around

The protection and not the vehicle is in the focus, that is the concept of a stable, self-supporting safety cell. Unlike to retrofitting concepts, which are armoured retroactively, the components of the protection systems are not welded into the chassis structure of the vehicle individually along the shell contour. Rather, the engineers

from brabus|automotive developed a self-supporting protective cell, the INVICTO Shelter Cell, which is inserted into the shell chassis in a disassembled state and then reassembled. Together with the additional elements, e.g. armoured doors, the bulletproof glazing, the front wall and the tailgate, a self-contained cell with an effective protection is created.



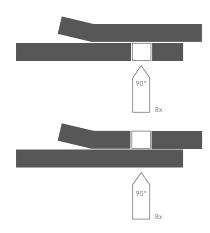


# VALIDATION

Extensive validation of the entire vehicle to OEM standard, instead of just testing the materials used. Further long-term testing of durability, fatigue strength and driving dynamics. Therefore, every INVICTO vehicle is branded with our EXPERTO CREDITE badge as a sign of protection excellence.

#### TEST EXAMPLE 1

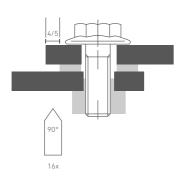
Validation of welded joints Plug welding on strike face Plug welding on protection side



Size: 500 mm x 500 mm Thickness: ≈ 4,40 mm Number of shots A: 8 hits on hole welding Number of shots B: 8 hits on welded joints Shot angle A: 90° Shot angle B: 90°

#### TEST EXAMPLE 2

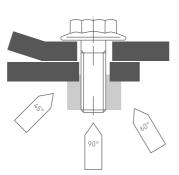
Validation of screw connection with spacer ring Testing sheet overlap



Size: 500 mm x 500 mm Thickness: ≈ 4,40 mm Number of shots: 16 Shot angle: 90° Shots: all in the range of 740 m/s

#### TEST EXAMPLE 3

Validation variant screw connection with threaded bush



Size: 500 mm x 500 mm Thickness: ≈ 4,40 mm Number of shots A: 8 / Shot angle A: 90° Number of shots B: 8 / Shot angle B: 90° Number of shots C: 8 / Shot angle C: 60° Number of shots D: 8 / Shot angle D: 45°



















#### BULLETPROOF IN A THOUSAND WAYS

Selection of shot test samples: Several thousand shots were being fired on all material pairings used, screw connections, connection points and seams of two components, bends or points where the armour and chassis are connected, from several angles and increasing projectile speeds.



# CERTIFICATION

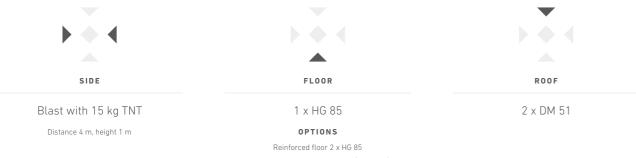
Fully certified armoured vehicle with blast protection at the level of a luxury state limousine

Our INVICTO top level protection is a ballistic and explosion resistant vehicle referring to VPAM test guidelines to BRV 2009 and ERV 2010. We cover an explosion certification for the whole vehicle.

#### CERTIFICATION

#### EXPLOSION CERTIFICATION FOR ROOF, FLOOR AND SIDE

Ballistic and explosion resistant vehicle referring to VPAM test guidelines BRV 2009 and ERV 2010



Fuel tank protection against fire (safe seal) Mine protection for the fuel tank (2 x HG 85)

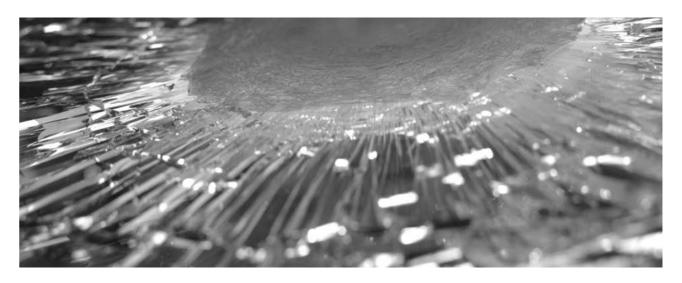
#### PROTECTION LEVEL PROTECTION LEVEL VR6 PLUS ERV

TEST STAGE VPAM	APPLICATION *	WEAPON	CARTRIDGE	AMMUNITION	TEST CONDITIONS
6	PM 6 BSW 6 VR 6 HVN 6			Calibre: 7,62 x 39 Type: FMJ/PB/FeC Mass (g): 8,00 ± 0,1 Hardness (HRC): Core 3,60 Manufacturer/Type: M 43	Shot distance (m): 10 + 0,5 Projectile speed (m/s): 720 ± 10 Projectile energy (joule): 2074

for VPAM-PM 2007, VPAM BRV 2009, VPAM BSW 2006, VPAM HVN 2009



Projectiles being fired by a shelling device guarantee compliance with the required standards



All over bulletproof glazing made of a glass and polycarbonate sandwich construction



All windows are exposed to several shots

#### FIELD-TESTED BULLETPROOF

The completed and protected INVICTO vehicle was put through a comprehensive shot and blast testing and then certified by an accredited german ballistic authority regarding ballistic projectiles and blasts. The G-Class INVICTO is available from a resistance class of VR6 or above. The addition "Plus ERV" is a result of the blast protection and this is definitely at the level of a luxury state limousine. Several thousand shots are fired as part of the certification. In addition to this, numerous explosion attempts of individual assemblies are carried out within an entry frame. With the successful certification according to the resistance class aimed for, VR6 Plus ERV, the INVICTO Shelter Cell also demonstrated its effectiveness in the realistic tests under the harshest of conditions. Its modular structure also offers the option of adapting the protective effect to much higher requirements, up to resistance class VR9.

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# LINES

#### THE THREE INVICTO LINES

With the INVICTO lines PURE, LUXURY and MISSION, vehicles of the protection class VR6 Plus ERV are available for a wide variety of needs and purposes. Customized configurations according to individual needs can be implemented and if necessary even higher levels of protection thanks to the modular INVICTO Shelter Cell structure.

With the INVICTO based on the Mercedes-Benz G-Class, brabus automotive has launched a special protection vehicle that is developed according to premium OEM standards. Protection, everyday suitability, comfort, driving dynamics, active and passive safety, communication and manufacturing quality all stand for the power of the INVICTO brand.

#### PERMISSIBLE TOTAL WEIGHT

4,300 kg

#### MAXIMUM LOAD

Above the standard level

#### APPROVAL

Parts assessment and single approval §21

Maintaining the original Mercedes-Benz chassis number

#### WARRANTY

Complete cars and conversions:

2 years warranty / 100,000 km

Drive train new cars:

2 years warranty / 100,000 km

Drive train used cars (maximum 12 months after first registration and less than 30,000 km): 1 year warranty / 100,000 km







### PURE

Serial exterior and serial interior with necessary modifications. Armouring kit: VR6 Plus ERV – armouring with standard protection features for Mercedes-Benz G-Class 463 A G500 or G63.

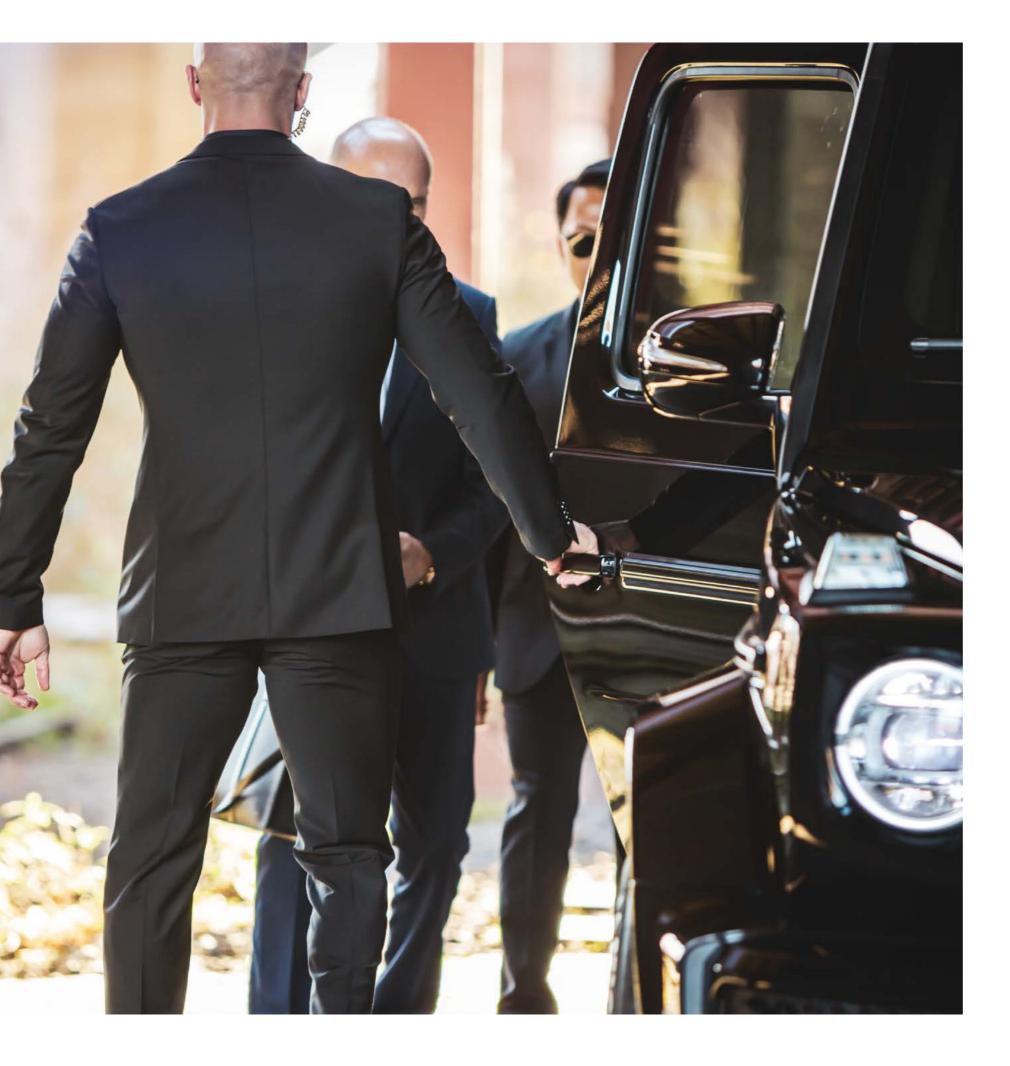
### LUXURY

Luxury, tailor-made interior in finest leather or Alcantara as well as exterior components and performance upgrades from the BRABUS accessory program. Armouring kit: VR6 plus ERV – armouring with standard protection features for Mercedes-Benz G-Class 463 A G500 or G63.

## M I 5 5 I O N

The perfect trace protection and escort vehicle with military compatible interior and special exterior features. Armouring kit: VR6 plus ERV – armouring with extended protection features for Mercedes-Benz G-Class 463 A G500 or G63.

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#### PURE PROTECTION

The PURE is the understatement INVICTO. With the Shelter Cell and all its guarding components, it offers maximum protection. At the same time, however, the exterior and interior remains as close to series as possible. Therefore, the INVICTO PURE is "undercover" in double sense.

Serial exterior and serial interior with necessary modifications. Armouring kit: VR6 Plus ERV – armouring with standard protection features for Mercedes-Benz G-Class 463 A G500 or G63.



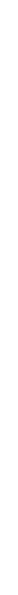
The interior of the INVICTO PURE remains standard and therefore inconspicuous



Mobility: due to the runflat system the heavy duty special wheels also run with damaged tires



INVICTO brand is the new symbol for security and "mobile sheltering"





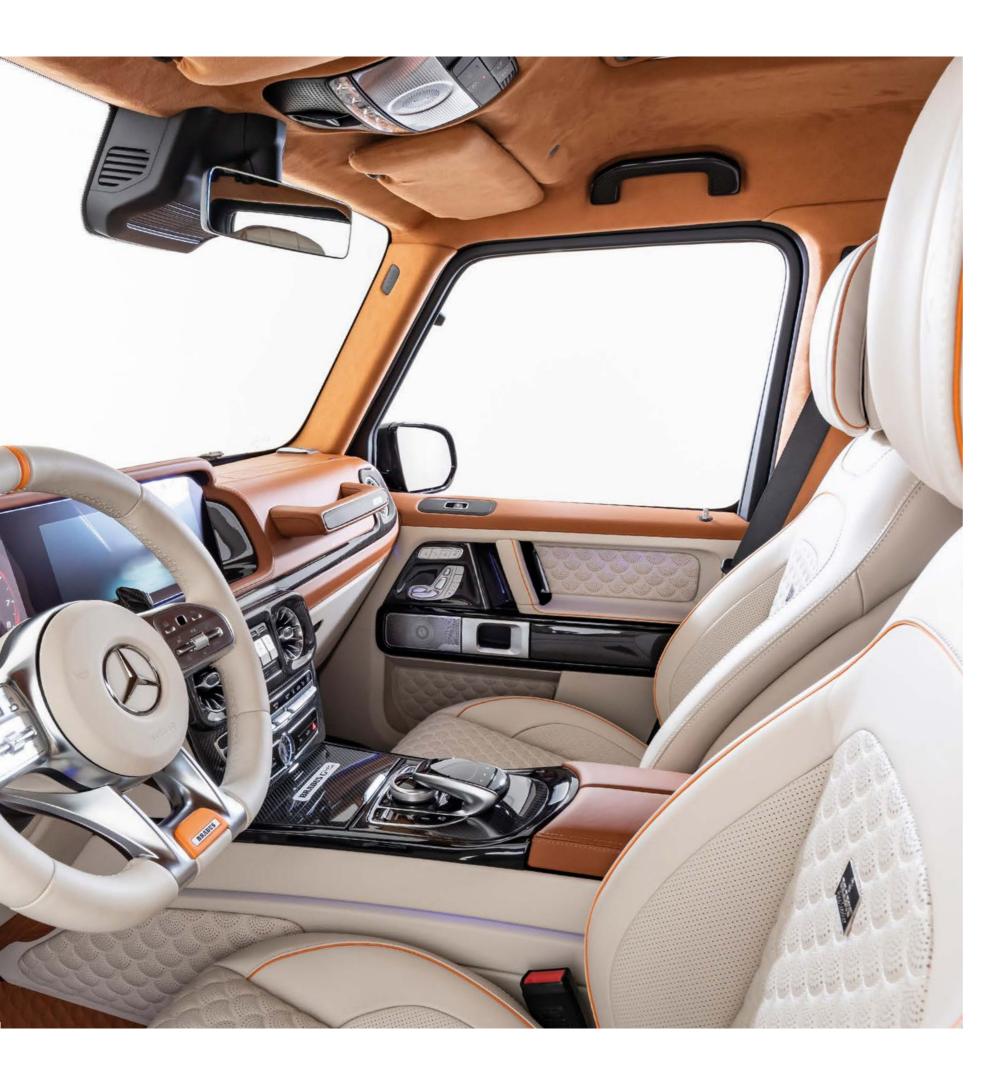


#### THE TAILOR-MADE BRABUS INVICTO

Safety at the highest level of comfort – that's INVICTO LUXURY. Configure the interior and exterior as well as the performance of the INVICTO individually with the BRABUS product range according to your wishes with highest design and quality standards.

Luxury, tailor-made interior in finest leather or Alcantara as well as exterior components and performance upgrades from the BRABUS accessory program. Armouring kit: VR6 plus ERV – armouring with standard protection features for Mercedes-Benz G-Class 463 A G500 or G63.







#### LUXURY INTERIOR - INVISIBLE SAFETY

The INVICTO LUXURY – almost invisibly – combines maximum protection with a stylish, luxurious interior. Tailor-made BRABUS interior is individual haute couture for automobile dreams: whether classic-modern, extravagant-sporty or very inventive - the INVICTO LUXURY presents stylish design at its highest level.

Tailor-made, you can choose from luxurious precious woods, carbon fibres and glove-soft BRABUS fine leather in 3,500 colors. The finest BRABUS craftsmanship, the highest precision and the finest materials have always set standards and make your INVICTO unique. Don't give up comfort for your personal safety, quite the contrary: the INVICTO Shelter Cell is hidden almost invisibly among the various interior variants.

**BRABUS** 





#### LUXURY PERFORMANCE -DYNAMIC EXPERIENCE

Impressive BRABUS power for an incomparable driving experience - that's BRABUS PowerXtra.

Maximum performance for the G63 with the B40S-800 performance kit. Each kit consists of two BRABUS special turbochargers with larger compressor unit (ø 52 mm) and modified core assemblies with reinforced axial bearings. The performance increase is completed with the BRABUS PowerXtra control module for the engine control unit. In addition to a bump in peak torque from 850 Nm to 1,000 Nm, the rated output jumps by 158 kW/215 hp from 430 kW/585 hp to 588 kW/800 hp. The plug-and-play control unit is adapted to the production electronics.

The maximum performance kit for the G500 is the BRABUS PowerXtra B40S-550. Each kit consists of two BRABUS special turbochargers with larger compressor unit and modified core assemblies with reinforced axial bearings. The performance increase is completed with the BRABUS PowerXtra control module for the engine control unit. In addition to a bump in peak torque from 610 Nm to 800 Nm, the rated output jumps by 115 kW/156 hp from 310 kW/422 hp to 404 kW/550 hp. The plug-and-play control unit is adapted to the production electronics.

The INVICTO top-speed is limited to 210 km/h in general.

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#### PERFECTION IN PROTECTION

The INVICTO MISSION – made for missions and more. Special target groups have special requirements to an armoured vehicle. With the MISSION we comply to this in every way and meet the exceptional demands for challenging purposes. With its sophisticated interior and the exterior features, the INVICTO MISSION is especially made for special forces. Furthermore, the concept is absolutely lifestyle, too.

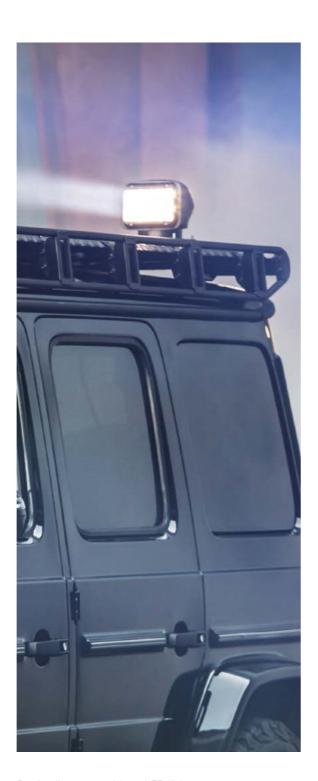
Of course, the INVICTO MISSION doesn't only provide reliable protection, the INVICTO MISSION also fulfills the highest demands regarding suitability for everyday use, comfort, driving dynamics, active and passive safety as well as manufacturing quality. Additionally, the INVICTO MISSION offers maximum customization options.

The perfect trace protection and escort vehicle with military compatible interior and special exterior features. Armouring kit: VR6 plus ERV – armouring with extended protection features for Mercedes-Benz G-Class 463 A G500 or G63.

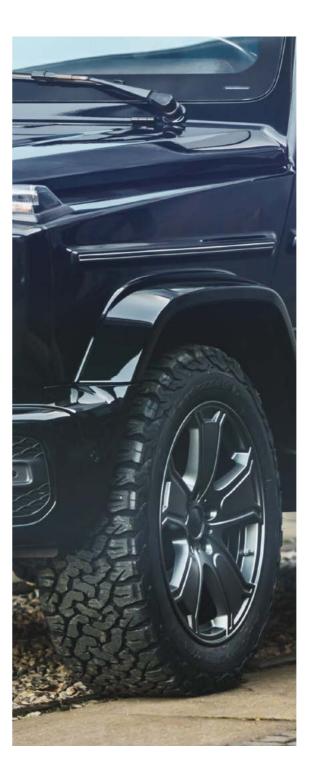
## **♦ INVICTO** MISSION



The optional heavy duty front winch ensures external mobility in an emergency and is geared towards the total vehicle load



Roof-rail system with an LED light bar and rotatable/swivel-mounted high power LED roof search lights



20" rough profile offroad tires on grey mat painted heavy duty wheels with runflat system (50 km at 50 km/h)

#### SERIAL FEATURES

Seats with variable foam geometry

feasible for protection vests and equipment

Integrated pockets and "MOLLE" loops on the rear side of the front seats

Flat door panels with "MOLLE" loops

Cordura heavy duty fabric on seats and door panels roof liner is trimmed with Alcantara

INVICTO floor mats

Digital rear display mirror

USB connectors

Acetech system with two touch control panels

Entry panels with brabus automotive logo

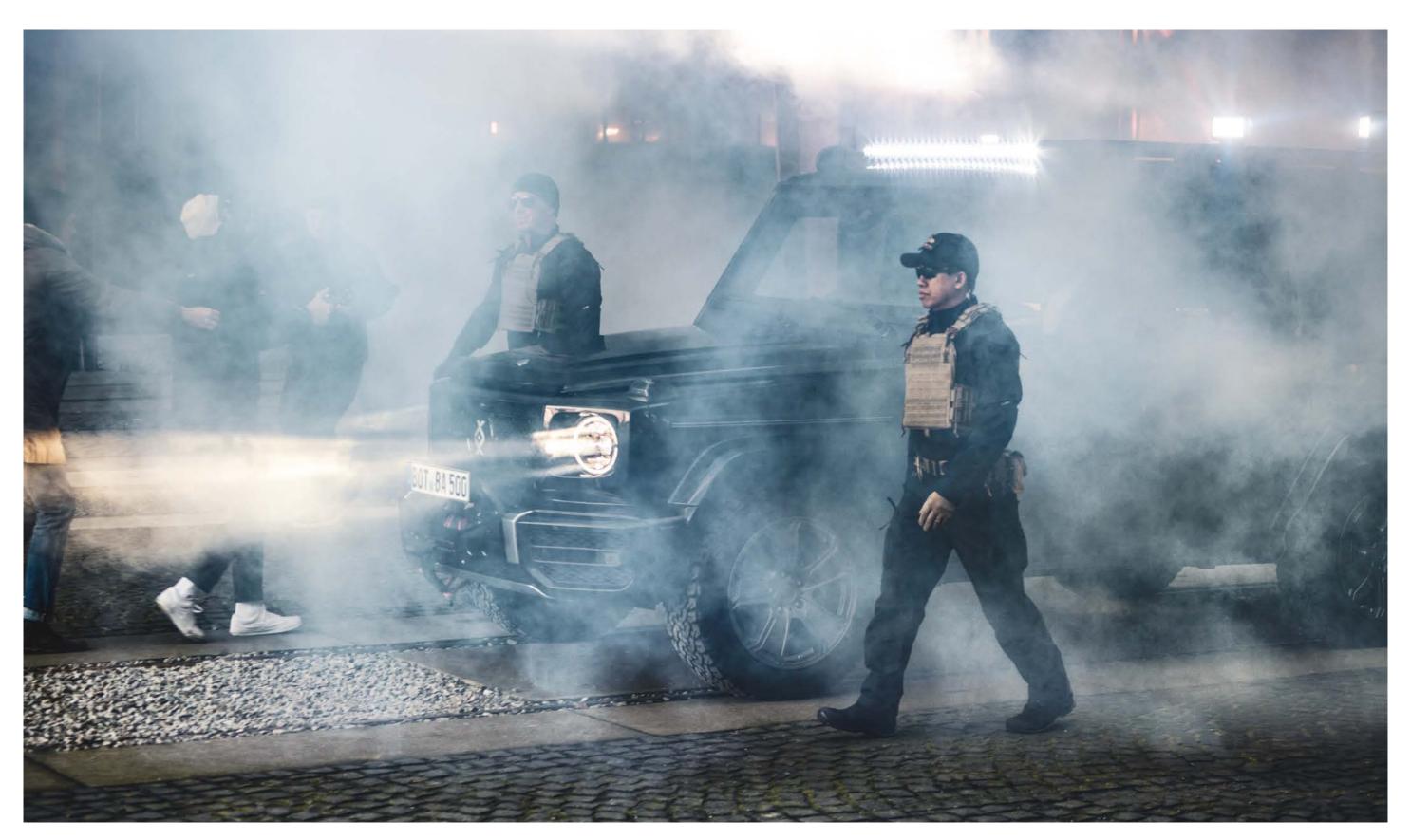
Intercom system

Roof rail system

20" rough profile offroad tires on grey mat painted

Heavy duty wheels with runflat system

SEE OPTIONAL FEATURES ON PAGE 36/37



#### IT'S CALLED MOLLE, IT'S MAGIC

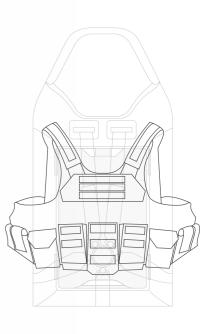
The door panels of all four doors and the rear sides of the front seats are trimmed with the MOLLE-system, which was developed for military purposes. MOLLE provides maximum flexibility to the crew. Furthermore, the material is extremely resilient.



#### PROTECTION VEST COMPATIBLE INTEGRAL SEAT

The INVICTO MISSION is equipped with four single integral seats with a five-point safety belt system. As a special feature the seat allows to take out foam elements in the back to make it flexible compatible with protection vests. The seats are trimmed with abrasion-resistant Cordura fabric. Due to the mounting points in the vehicle the rear seats offer much more legroom than the serial seats.





The protection vest is an alwayson life insurance and usually fitted with personal combat equipment. Armed in such a way, a serial vehicle interior makes it impossible to move unimpeded and comfortable.



# A D D - 0 N S

No compromises when it comes to safety



Make your INVICTO as personal as you are by selecting individual options from the INVICTO accessory program:

Lightning and signalsystem

Auxiliary rooflights

IR Package: headlamps in front bumper, tail lights in rear bumper, night vision device

Fire extinguishing system

Fresh airsystem with ABC filter

Folding protective shield

BLAC RAC and iPad / tablet support solutions

Anti-drone system

Expandable modular compartment system on a railsystem

Escape hatch

#### DIVERSITY IN SAFETY

■ SERIES ■ OPTIONAL

Here is our overview of standard equipment and options for the lines PURE, LUXURY and MISSION.

FEATURE	PURE	LUXURY	MISSION
INVICTO Shelter Cell  Hot formed armour steel plates  Bullet resistant supply ducts from inside to outside  Absolute innovation: 3D printed protection elements  Fabric structures, fibre structures, ceramic and metallic  Complete bulletproof glazing composites			
Window lifter Front left and right			
Chassis adaptation Springs, torsion bars, shock absorbers, axle components			
Reinforced high-performance brakes Front and rear axle			
20" heavy duty wheels with increased load capacity			
Tires with runflat system 50 km at 50 km/h			
Seats with variable foam geometry Feasible for protection vests and equipment			
Integrated pockets and "MOLLE" loops on the rear side of all seats			
Flat door panels with "MOLLE" loops			•
Cordura heavy duty fabric on seats and door panels			
INVICTO floor mats			•
Digital rear display mirror			•
USB connectors			•
Acetech system with two touch control panels for special features and options			

FEATURE	PURE	LUXURY	MISSION
360° helicopter-view			
on glove compartment-display	_	_	-
Entry panels with brabus automotive logo			
Entry panels with BRABUS logo	-	•	
Intercom system	-		
Roof rail system			
20" rough profile offroad tires			
on black mat painted heavy duty wheels with runflat system			•
Heavy duty front winch			
Lightning and signal system	-		
Auxiliary roof lights			
Only in combination with roof rail system	_		
IR Package IR headlamps in front bumper IR tail lights in rear bumper Night vision device			
Fire extinguishing system			
Fresh air system with ABC filter			
Folding protective shield			
BLAC RAC and iPad /			
tablet support solutions			
Anti-drone system*			
Expandable modular compartment system on a rail system			
Escape hatch			
Drone with sky-view			
BRABUS individual interior program			
BRABUS individual exterior program			
BRABUS power enhancement G500 / G63			
* very restricted product			

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brabus automotive

## SMALL VOLUME PRODUCTION AT OEM LEVEL

Brabus Automotive GmbH is the ultra-flexible high-class general contractor with manufacturing processes that meet the highest quality standards and customization requirements. Within the Brabus Group of companies, brabus|automotive is responsible for development and production of special series and small-volume vehicle derivatives. The company generally performs projects as a general contractor on behalf of notable vehicle manufacturers as turn-key projects. In addition, brabus|automotive also develops, produces and sells vehicle derivatives under their own brand names. As a general contractor, brabus|automotive realizes the most complex tasks of the automobile industry using the highest industry standards and, in particular, taking into account sensitive aspects such as resources, special processes and approval management.

For over 40 years, Brabus Group history has been characterized by vision, innovation and quality. The Bottrop-based think tanks, such as brabus|automotive, develop faster and ultimately further than the competitors.

brabus|automotive Precise. Rapid. Smart.



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### NOTES

