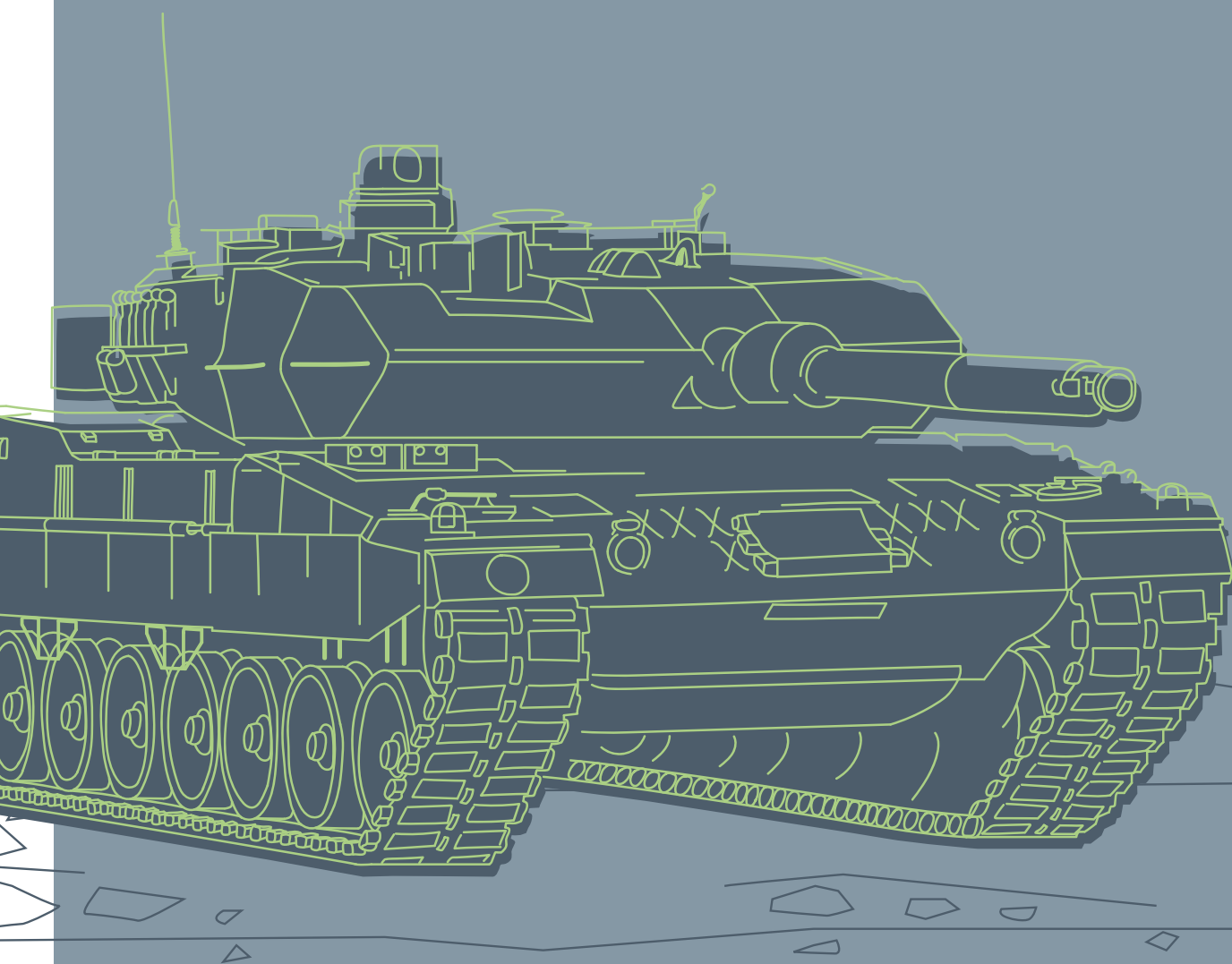


DIFENDER

For safety and security



Dillinger

Pure steel, pure future

For more than 333 years, we have put pure expertise and innovation in steel into practice. We are committed to progress, the climate, and future generations. Europe's leading heavy plate manufacturer is achieving great things – together and for each other.

Steel is the future

Steel is unique: Its strength, elasticity and processing properties enable a wide range of applications and impressive constructions. Its 100% recyclability makes it unbeatable when it comes to sustainability. As a reliable partner to our customers, we design excellent products for key industries such as steel construction, mechanical engineering, and the energy sector. Our steel plates are already accelerating the energy transition – in offshore wind turbines and in storage and solar power plants.

Pure future

Our aim is to ensure a sustainable future today as well as tomorrow. We are committed to achieving carbon-neutrality by 2045 and are actively accelerating the development and use of technologies such as hydrogen and electric steel production. Our decarbonization project Power4Steel is an important milestone in this regard and is paving the way for a climate-neutral tomorrow. We already offer carbon-reduced heavy plate under the D-PURE+ label, and we will be producing carbon-reduced steel on the new DRI-EAF production route starting in 2027/28.

Pure quality

At Dillinger, the entire manufacturing process – from research to steel production to the rolling mill – is focused solely on the heavy plate product. This specialization gives us unparalleled expertise, which we use to benefit our customers. We use our knowledge, the latest technology and state-of-the-art AI applications to produce our steel plate to a consistently high quality and to advance the development of our products and services. Dillinger offers an incomparable product portfolio with more than 2,000 different types of steel and an impressive range of dimensions. Personalized customer advice and an increasingly digital range of services perfectly complete our range of services.

Pure commitment

We take responsibility together and for each other. For our employees, our environment, our products, and our future. Our cooperation is defined by partnership and a culture of appreciation. We are the backbone of a reliable power supply and secure infrastructure. Inquisitive and open-minded, flexible and focused on solutions – we are creating the future for generations to come. We are “Made in Europe” – and prove our value worldwide.

We are Dillinger. We are Pure Steel+

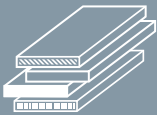
Dillinger at a glance



More than **333** years of
experience in steel



Expert advice for more than **10** diverse fields of application



Over **2,000** different grades



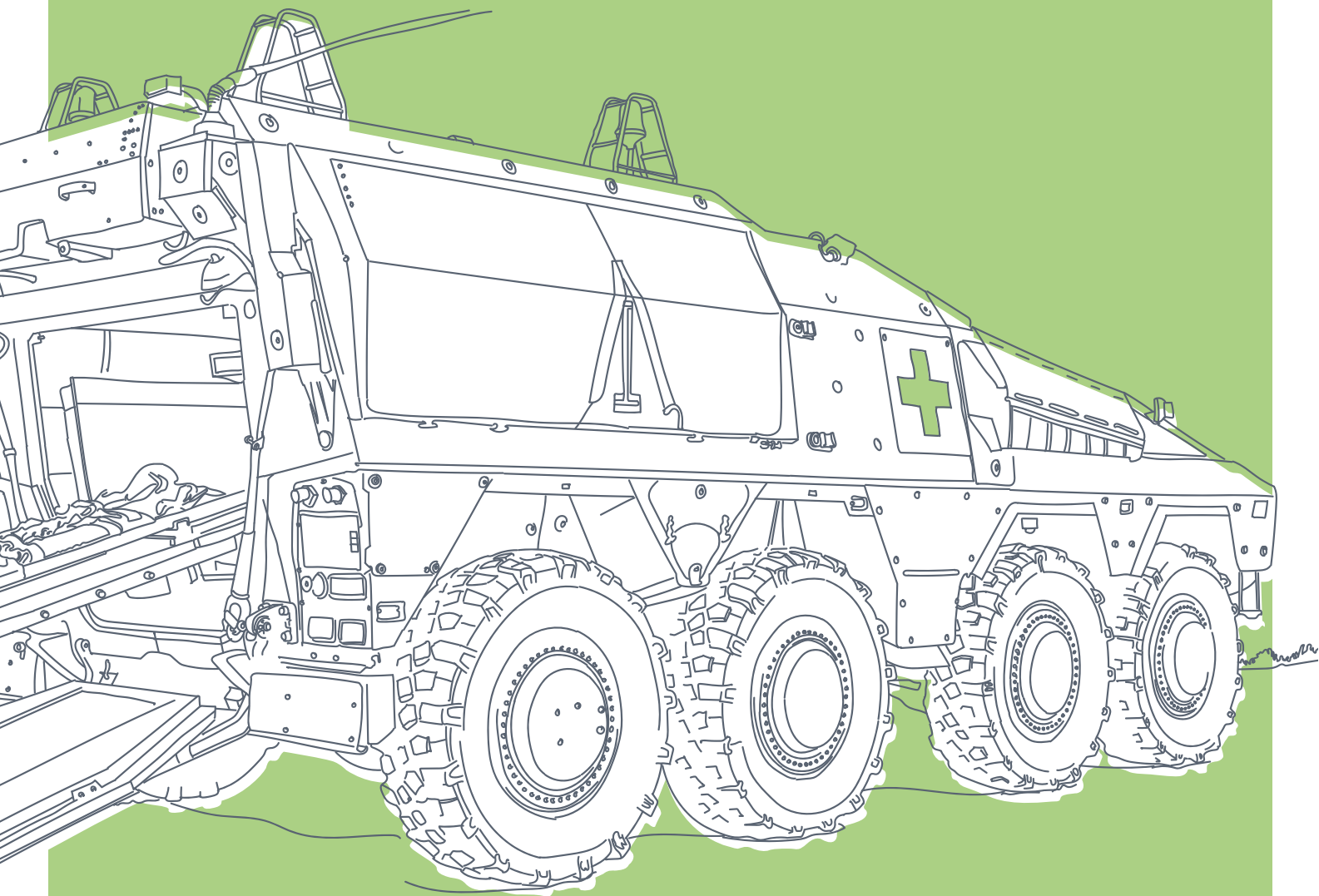
More than **200** international approvals,
certificates and materials qualifications



Plate weight up to **52 t**



Heavy plates up to **28** m length and **500** mm thickness



DIFENDER

The new generation of steels

It's a basic human need like freedom from hunger and thirst – the need for safety. In its DIFENDER grades, Dillinger supplies a material that convinces security experts around the entire globe.

Customers' demanding requirements

Security systems are intended to protect people and property and must operate with total dependability at all times. The requirements made on design and material are correspondingly high, and the applications correspondingly diverse, ranging from civilian and military armoured land vehicles and water craft, via secure cash transporters, up to and including building security.

Experienced specialists

Dillinger, Europe's leading producer of heavy plate, has for decades supplied the security industry with the appropriate steel products: special steels that not

only make the products in their respective spheres of application the safest on their particular market, but also offer optimum processing behaviour even in difficult installation situations.

Steel you can entrust your safety to

Dillinger has now developed, in the form of "DIFENDER", a totally new generation of high-strength armour steels which assure, via the combination of their various functionalities, a very special benefit: maximum protection combined with minimum weight.

Product benefits at a glance

- Unparalleled protection against ballistic attack, explosives and fragments
- Suitability for use in both civilian and military applications: numerous customer, project, and official approvals
- Even ultra-low thicknesses meet ultra-high security requirements
- Conformant to multiple national standards
- Assurance of outstanding working and processing properties
- Approved according TL 2350-0000

Service benefits at a glance

- Comprehensive individual advisory service by our experienced experts
- Detailed advice and recommendations on all working processes
- Available ex stock in full plates and semi-fabricated
- E-Connect App permits mobile plate identification and displays plate certificate data



Discover our E-Service area with various tools, important information and the E-Connect App for the identification of plates and the download of certificate data.

Boosting your security

The DIFENDER range portfolio now includes:
DIFENDER 270, 300, 350, 550 und 600 PH

DIFENDER steels are exceptionally versatile

DIFENDER is defined as a high-strength alloyed quenched and tempered steel possessing special resistance to ballistic attack, explosives and the effects of fragmentation. It is mainly used in applications in which the lowest possible armouring weight is needed. These steels' performance against the threats mentioned above permits their use in both civilian and military applications.

Our extended offer at a glance

DIFENDER grades can be offered in the thickness range from 6 up to maximum 150 mm. All DIFENDER grades meet the requirements of the important relevant standards. Selection of the best grade for your application ultimately depends on the necessary level of security. Verification of ballistic properties, in conformity to VPAM and STANAG, inter alia, is performed, of course, in accredited laboratories. Equally a matter of course are the DIFENDER steels' excellent working properties in terms of cutting, bending and welding, which are documented by means of corresponding series of tests. These tests are used to generate practice-proven recommendations for working of the steels by the customer.

Together we're strong

Extra security is never simply the result of a single technical detail but instead is achieved via precise coordination of functions, applications, design and the use of specialized materials. For this reason, individual consulting services for every customer by our experienced experts is where each and every order starts. Thanks to the profound knowledge available in metallurgical models and to highly developed production processes, heavy-plate expert Dillinger is best equipped for the development of specialized solutions in steel.

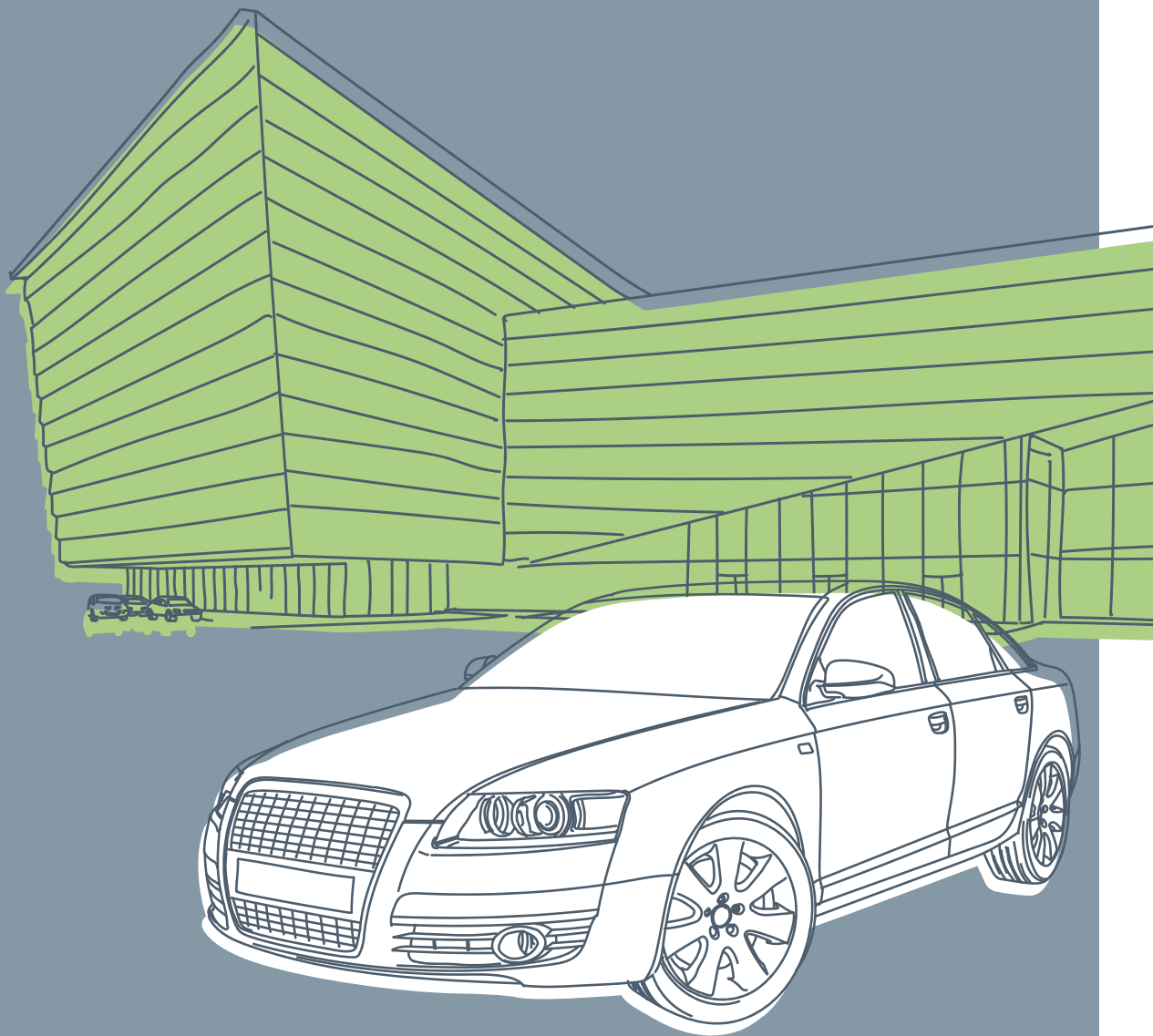
Grade	Brinell hardness [HBW]	min. impact energy KV ₂ [J]*
DIFENDER 270 (PLUS)	250-290	45 (100)
DIFENDER 300	280-330	60
DIFENDER 350	330-380	30
DIFENDER 400	380-430	27
DIFENDER 450 (PLUS)	400-480	35 (40)
DIFENDER 500 (PLUS)	480-530	24 (32)
DIFENDER 550	530-590	15
DIFENDER 600	570-640	10

*) At -40 °C

All grades are also available for warm press hardening in the delivery condition "as rolled" or soft annealed. Please contact us!

You can find your personal contact and more detailed information on our homepage at www.dillinger.de under [Products](#) [Industry sectors](#) [Protection](#).

You can also find the contact data for our Steel Service Center (SSC), which will enable you to obtain DIFENDER grades - including semi-fabrication - at short notice, on our homepage, again starting at [Products](#) under [Plates on stock and steel services](#) [Dillinger plates and prefabrication services from stock](#).





Please contact one of our partners for individual advice,
both technical or commercial.

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