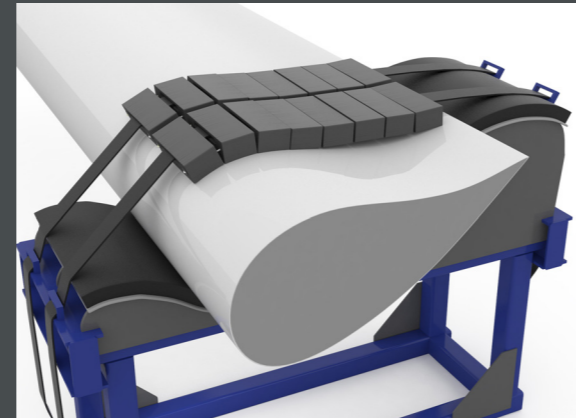
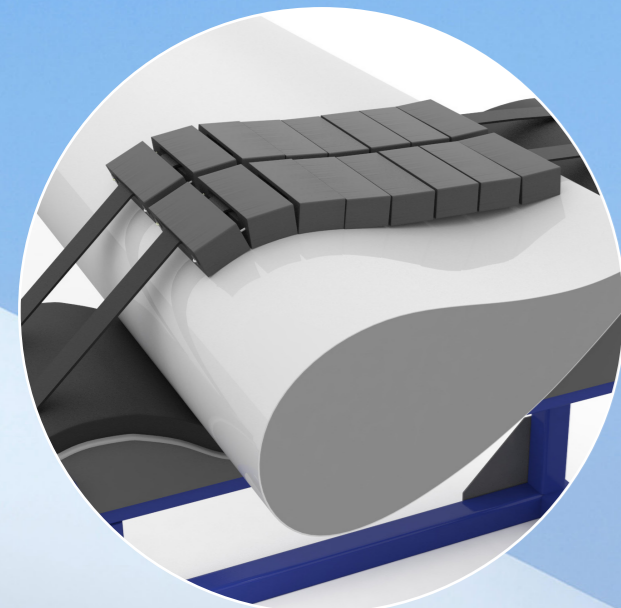
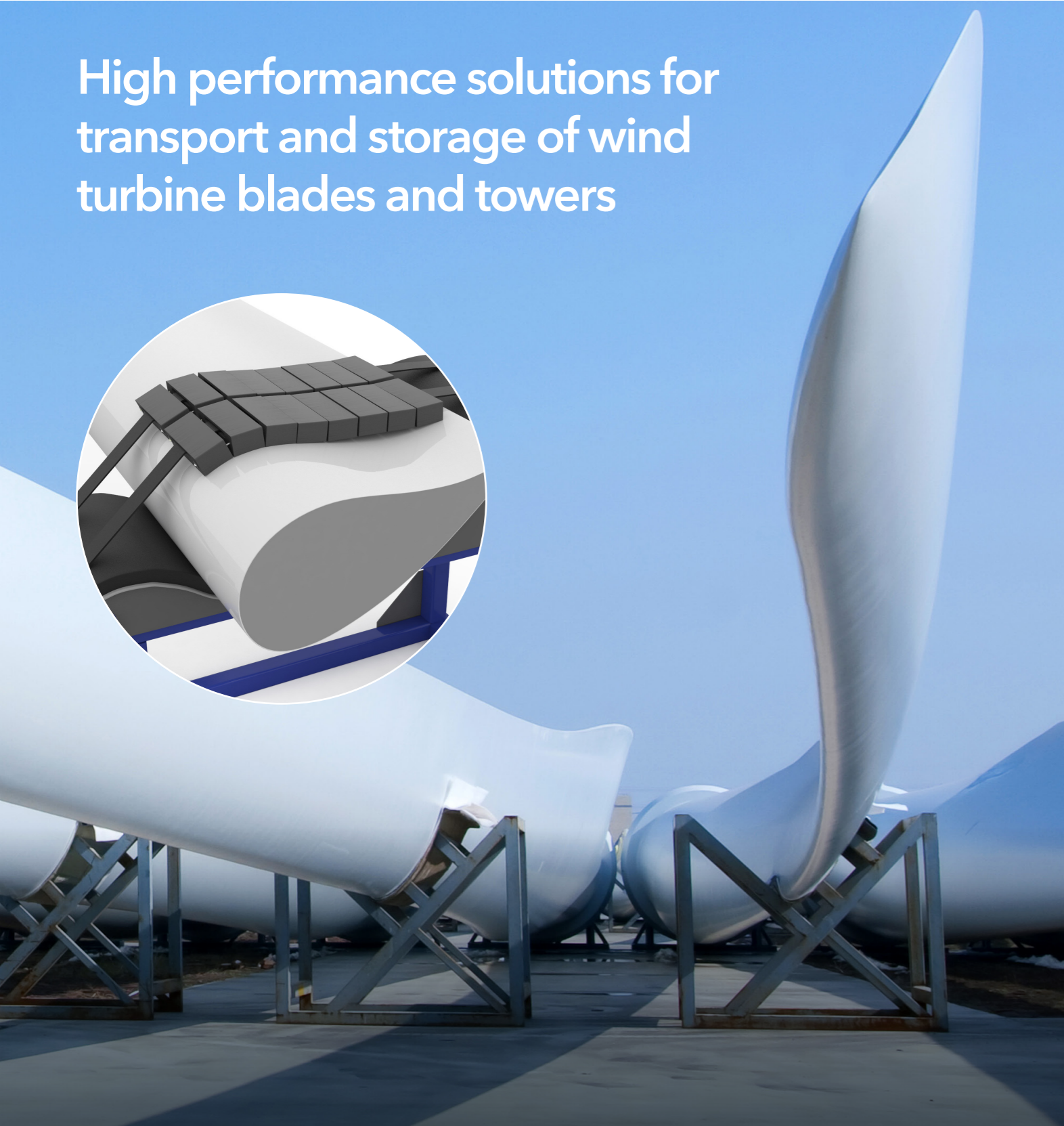




DAFA CargoPro®

Material overview

High performance solutions for transport and storage of wind turbine blades and towers



DAFA CargoPro is a range of innovative and protective solutions for transport and storage of blades, towers and equipment for wind turbines.

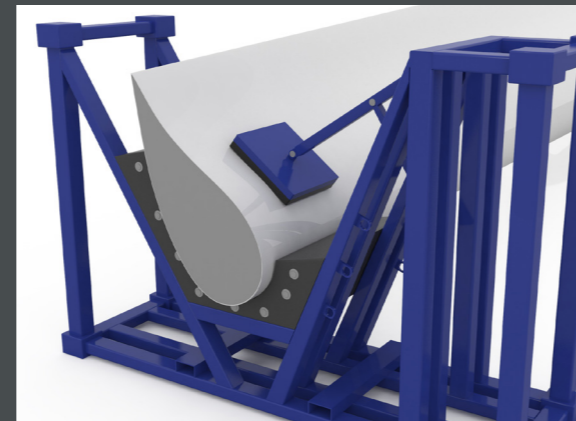
DAFA CargoPro is particularly suitable for transport and storage of wind turbine blades and consist of a range of tested and proven rubber mats and foam solutions.

Unique protective blade solutions

Rely on DAFA CargoPro for protecting blades and equipment during transport and storage.

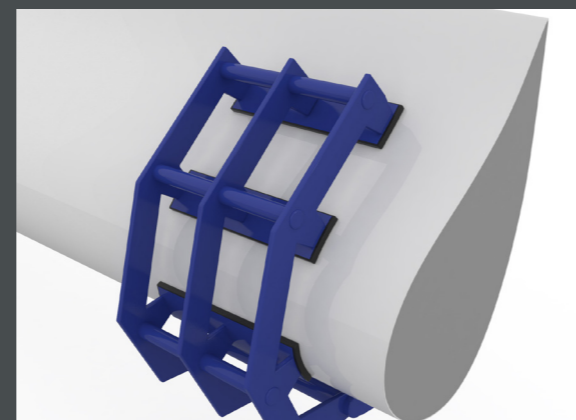
Thanks to their large load bearing capacity, high friction surface and great shock and vibration dampening qualities, DAFA CargoPro is suitable as cushioning and antislip for high load transport.

By reducing traction and protecting from shocks during transport, DAFA CargoPro keeps the blades intact. Rely on DAFA's material guide to find the right solution for your project.



Advantages

- Safe transport without damage or repairs
- Does not deteriorate and might be reused
- Large load-bearing capacity
- Slip resistant
- Weather resistant
- Long service life
- High friction
- Easy handling



Disclaimer

The information in this data sheet is intended to assist you in designing with DAFA products. It is not intended to and does not create any warranties expressed or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on this data sheet will be achieved by a user for a particular purpose. The user should determine the suitability of DAFA's products for each application



Close to the markets - close to You

Cooperating with the world's leading material suppliers, we offer a wide material selection and the most sufficient manufacturing process. Our state-of-the-art machinery, research and development facilities, effective logistics, and efficient delivery ensure that your project will be carried out cost effectively.

DAFA is geared to accommodate new and untried challenges in polymer materials. Let us guide you to unique solutions for your projects.

We offer

- New ideas to your solutions
- The right material for your project
- Production of prototypes
- CAD simulation software



Prototype and testing

- In-house 3D scanner and 3D printer
- Preparing prototypes
- Testing in conjunction with your design
- Any further development
- Approval of functional and visual properties

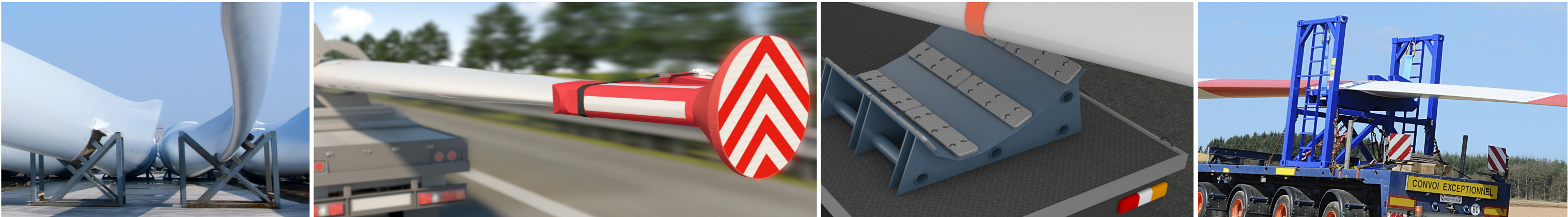


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DAFA CargoPro®

Foam and rubber solutions for optimal protection during transportation and storage

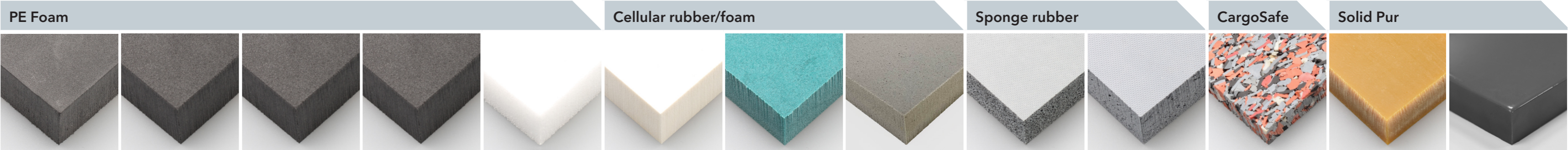


Attachment of materials

DAFA CargoPro foam, rubber and plastic solutions keep the blades and towers intact.

Let yourself inspire by our range of open and closed celled materials in various dimensions and hardnesses.

All materials are available in various sizes upon request.



| Properties | Specification | DAFA PE 33 | DAFA PE 60 | DAFA PE 120 | DAFA PE 200 | DAFA PE 900 | DAFA Cellular rubber 19 | DAFA Cellular PUR 680 | DAFA Cellular PUR 400 | DAFA Sponge rubber 20 | DAFA Sponge rubber 35 | DAFA CargoSafe | DAFA PUR 70 | DAFA PUR 50 Molded item |
|-------------------------------------|--|------------------------|------------------------|-------------------------|-------------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------------|-------------------------|--------------------------|--------------------------|-------------------------|
| Standard dimension | | 2000 x 1000 mm | 2000 x 1000 mm | 1890 x 930 mm | 1650 x 830 mm | 2750 x 600 mm | 2000 x 1000 mm | 5000 x 1500 mm | 5000 x 1500 mm | 2000 x 1000 mm | 1000 x 1000 mm | 10000 x 1250 mm | 2000 x 1000 mm | Molded item |
| Standard thickness | | 2-300 mm | 2-100 mm | 2-55 mm | 2-53 mm | 2-50 mm | 3-45 mm | 5-25 mm | 5-25 mm | 20 mm | 20 mm | 10 mm | 2-25 mm | |
| Density | <ul style="list-style-type: none"> ISO 845 ISO 1183-1 | 33 kg/m ³ ① | 60 kg/m ³ ① | 120 kg/m ³ ① | 200 kg/m ³ ① | 146 kg/m ³ | 115 kg/m ³ ① | 680 kg/m ³ | 400 kg/m ³ | 650 kg/m ³ ② | 900 kg/m ³ ② | 1050 kg/m ³ ① | 1240 kg/m ³ ② | 1120 kg/m ³ |
| Colour | | Anthracite or white | Anthracite or white | Anthracite | Anthracite | White | Black or white | Turquoise | Grey | Grey | Grey | Grey with coloured spots | Yellowish brown | Grey |
| Hardness | | > 38 Shore 00 | > 58 Shore 00 | > 33 Shore A | > 43 Shore A | | > 35-55 Shore 00 | | | > 30 Shore A | > 35 Shore A | | > 70 Shore A | > 50 Shore A |
| Compression strength 25% deflection | <ul style="list-style-type: none"> ISO 3386-1 ISO 3386-2 | > 48 kPa ① | > 120 kPa ① | > 230 kPa ① | > 300 kPa ① | > 75 kPa * | > 40 kPa ② * | > 675 kPa ② * | > 162 kPa ② * | > 105 kPa ② * | > 340 kPa ② * | > 417 kPa ② * | > 2740 kPa ② * | > 5029 kPa ② * |
| Compression set after 24 h recess | ISO 1856 | < 16 % | < 6 % | < 4 % | < 3 % | < 8 % | < 14 % * | < 0,8 % * | < 2,42 % * | < 3 % * | < 2,47 % * | < 19 % | N/A | N/A |
| Tensile strenght @Peak | ISO 1926 | > 211 kPa * | > 607 kPa * | > 1050 kPa * | > 1540 kPa * | > 692 kPa * | > 528 kPa * | > 2080 kPa | > 1440 kPa | > 430 kPa | > 424 kPa | > 472 kPa | > 22900 kPa | > 29000 kPa |
| Tensile elongation | <ul style="list-style-type: none"> ISO 1798 DIN 53504 | > 120 % ① | > 170 % ① | > 110 % ① | > 110 % ① | > 18 % | > 180 % ① | > 230 % ① | > 208 % ① | > 250 % ② | > 350 % ② | > 60 % ① | > 500 % ② | > 522 % ② |
| Frictional properties static | ISO 15113 | 0,73 uS * | 0,78 uS * | 0,37 uS * | 0,31 uS * | 0,26 uS * | 2,25 uS * | 1,02 uS * | 0,20 uS * | 1,06 uS * | 0,99 uS * | 1,39 uS * | 2,33 uS * | 3,38 uS * |
| Frictional properties dynamic | ISO 15113 | 0,73 uD * | 0,73 uD * | 0,35 uD * | 0,29 uD * | 0,25 uD * | 2,27 uD * | 0,88 uD * | 0,18 uD * | 0,91 uD * | 0,89 uD * | 1,39 uD * | 1,94 uD * | 2,84 uD * |

* Third party testing

** Internal test standard