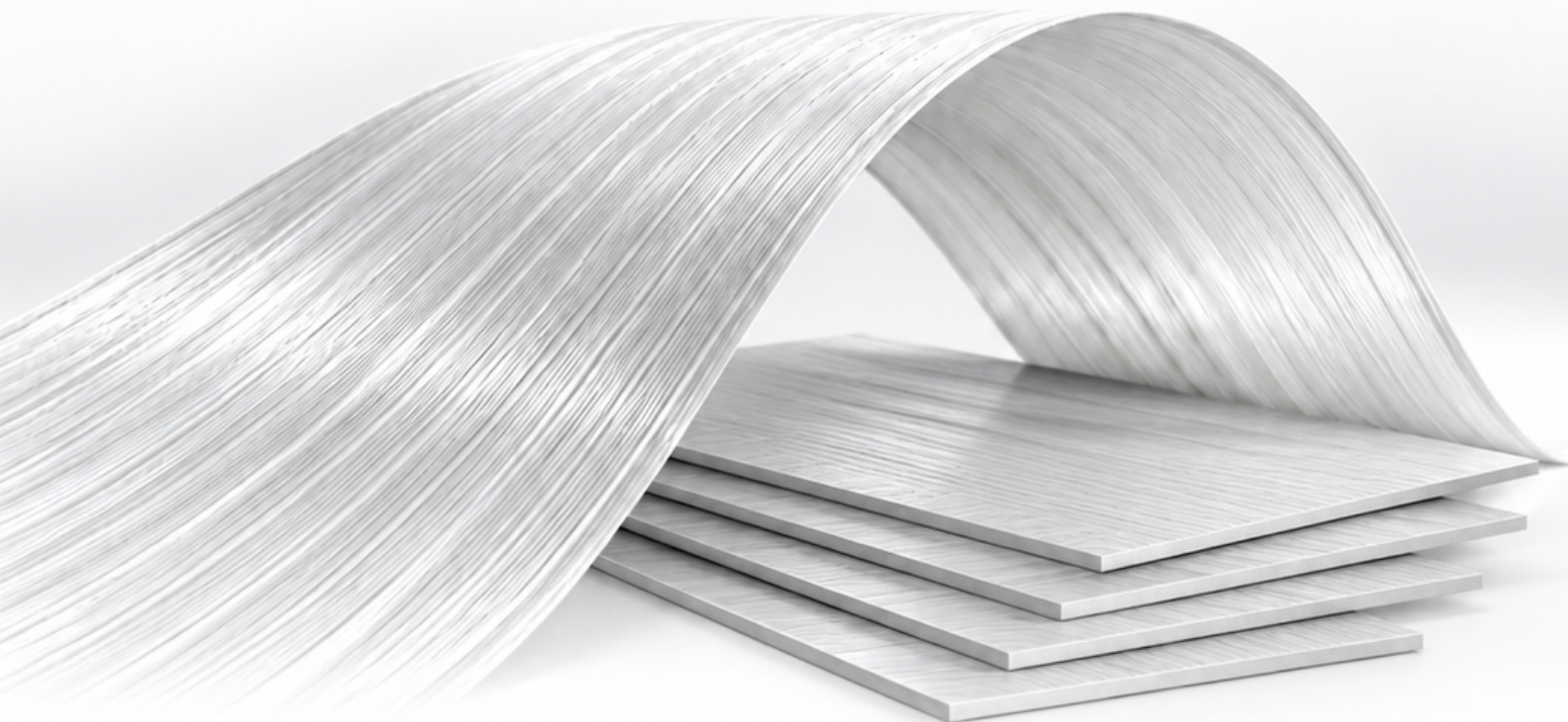




Continuous Fiber Reinforced Thermoplastic Tapes



UD Max Tapes is a brand of OZER

Continuous Fiber Endless Possibilities

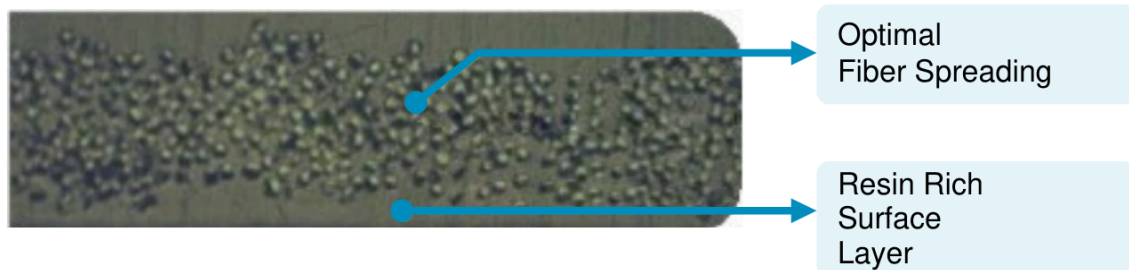
UDMAX® produces continuous fibre reinforced thermoplastic unidirectional tapes. Aligned fibres provide strength and stiffness for lightweight composite structures, from crossply laminates to sandwich panels and formed components.



Maximum Tape Width	Maximum Cross Ply Width	Maximum Fiber Content
560 mm	3,200 mm	80%
Annual Production Capacity	Thermoplastic Resin Options	Fiber Options
6,000+ t	PP · HDPE · PA6	Glass Fiber · Carbon Fiber

Benefits of resin-rich surfaces

High Pressure Fibre Impregnation Technology, HPFIT®, spreads and impregnates the fibres while creating resin-rich layers on both tape surfaces.



Stronger Bond

Surface resin helps compatible thermoplastic layers fuse under heat and pressure, supporting interlayer bonding in laminates and composite skins.

Better Welding

Resin at the joining interface melts and fuses with a compatible surface, supporting thermal welding and consolidation.

Product Types

Single layers, crossply laminates, slit tapes and woven tape fabrics.



Single layer

Continuous unidirectional reinforcement, with fibres aligned along the tape.



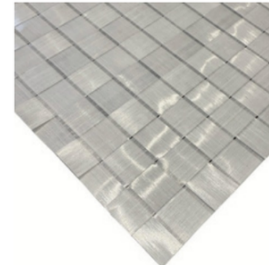
Crossply

Customer-specific orientations; laminates up to 3.2 m wide and 12 layers.



Slitting

Wide UD tape converted into narrow tapes with widths of 5–25 mm.



Woven

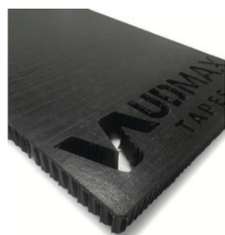
Tape fabrics for composite processing and component development.

Match the architecture to the load path

Choose the fibre direction, tape format and thermoplastic matrix for the component and its downstream process. The current product range includes PP, HDPE and PA6 matrices.

Build the complete structure

UDMAX® tapes combine with other materials to create reinforced panels and composite structures.



HEXAPAN

Honeycomb panels with composite skins.



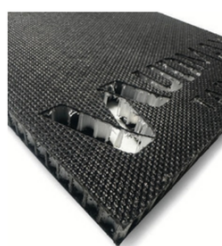
Aluminium

Metal and thermoplastic composite solutions.



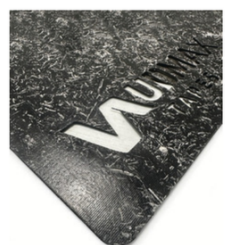
Steel

Composite solutions with steel layers.



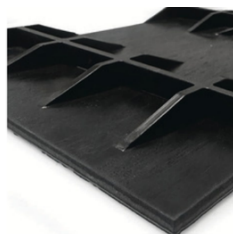
Antislip

Surface options for panel applications.



Mosaic

Composite material solutions.



DLFT

Long-fibre thermoplastic solutions.



LWRT

Lightweight reinforced thermoplastics.



WPC

Wood plastic composite solutions.

Skin/core compatibility and the joining route define the final construction. Validate the selected interfaces and laminate for the application.

Product range at a glance

Typical values from the current product data sheets. Product-grade figures are not design allowables.

Grade	Matrix	Glass wt. %	Thick. mm	Density kg/dm ³	Areal wt. g/m ²	Tensile modulus 0° GPa	Tensile strength 0° MPa
GPP 55-80	PP	80	0.25	1.88	475	43	1090
GPP 45-70	PP	70	0.25	1.67	417	37	1010
GPP 40-65 AO	PP	65	0.28	1.57	439	29	970
GPP 45-70 FR	PP	70	0.25	1.66	415	36	675
GHDPE 46-70 XP001	HDPE	70	0.25	1.67	430	31	1050
GHDPE 40-65 XP011	HDPE	65	0.27	1.61	434	31	850
GPA 40-65	PA6	65	0.27	1.72	465	33	870

Data basis: GPP 55-80 rev. 23092901; GPA 40-65 rev. 25031701; other listed grades rev. 22092301. Some grades are preliminary. Consult each data sheet for test methods, conditions and revision details.

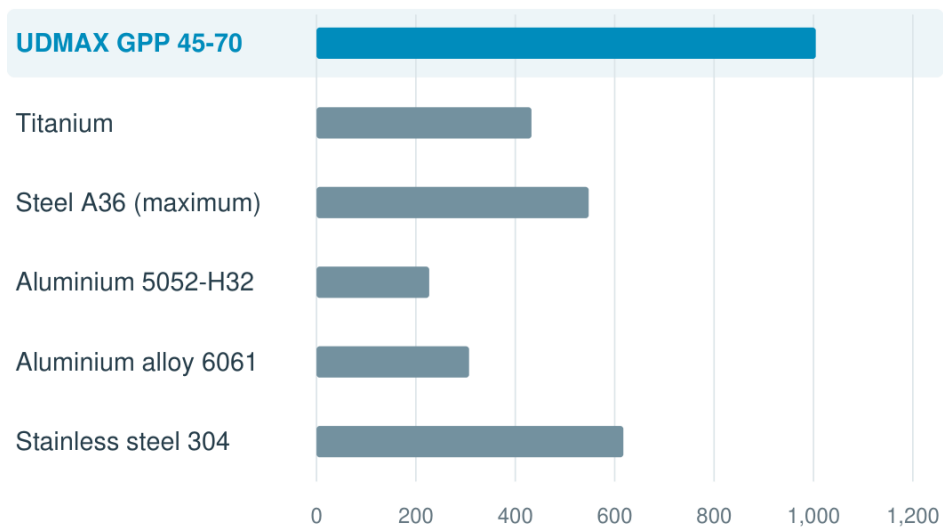
Properties in the table apply in the 0° fibre direction. Lay-up, consolidation, joints and service conditions affect finished component performance.

[Open grade-specific data sheets and available MSDS documents](#)

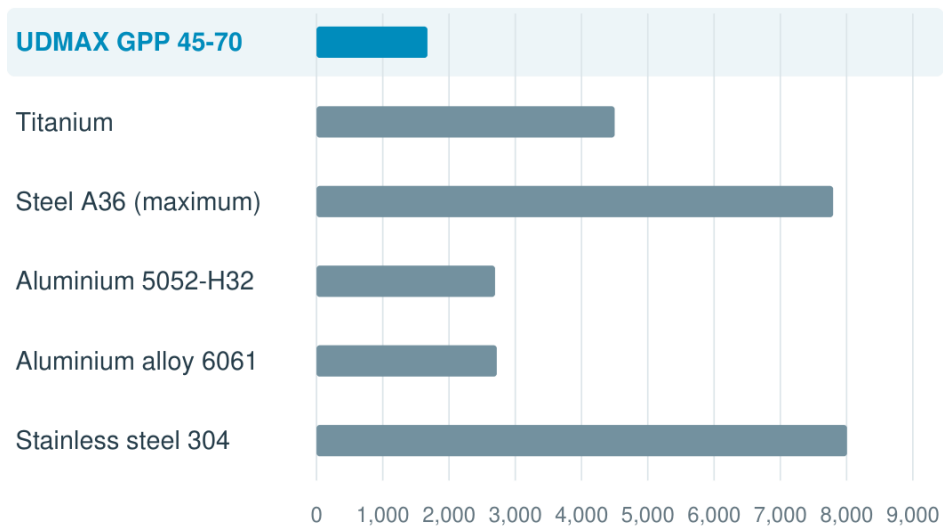
UD Tape vs. Metals

UDMAX GPP 45-70 · Tensile strength and density

Tensile strength / MPa



Density / kg/m³



Graphs reproduce the website comparison. UD tape tensile performance is directional (0°); metal properties depend on grade and condition. Compare complete designs at the same functional requirement.

From tape to component

Controlled heat, pressure and cooling turn thermoplastic reinforcement into composite structures.

Tape Winding

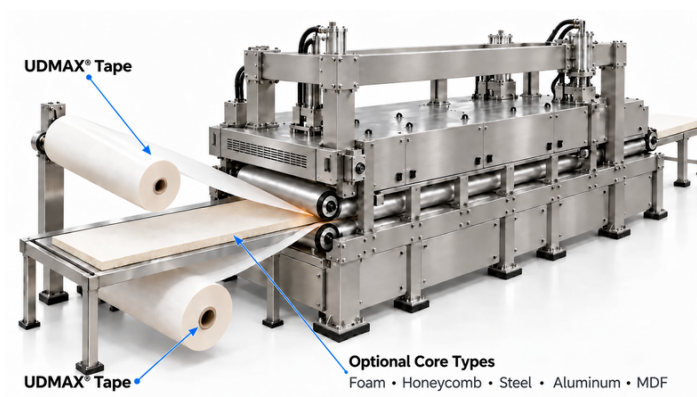


Wound tube sample

Slit & unwind → Heat, wind & compact → Build the layers

Narrow tapes wrap around a rotating mandrel or liner. Heat fuses compatible thermoplastic surfaces while roller pressure consolidates the layers. Applications include composite pipes and pressure vessels.

Panel Solutions with Different Cores



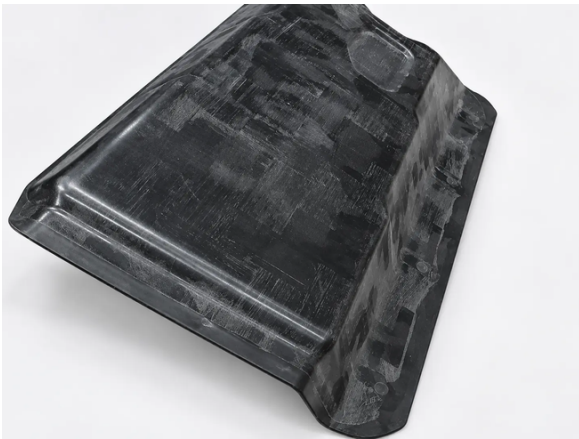
Unwind skins → Feed core → Heat & press → Cool & finish

A double belt press laminates UD tape or crossply skins around a core. Honeycomb, foam, WPC and MDF are core options; adhesive-free fusion requires compatible interfaces and a qualified process.

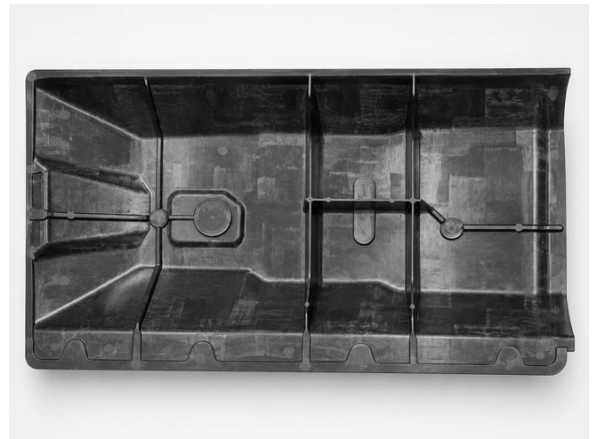
Reinforcement meets function

Thermoforming with injection molding

UDMAX® tape laminates and woven tape preforms are heated and shaped as the mold closes. Compatible thermoplastic is injected onto the reverse side to create reinforcing ribs, grid structures and mounting features in the same molding cycle.

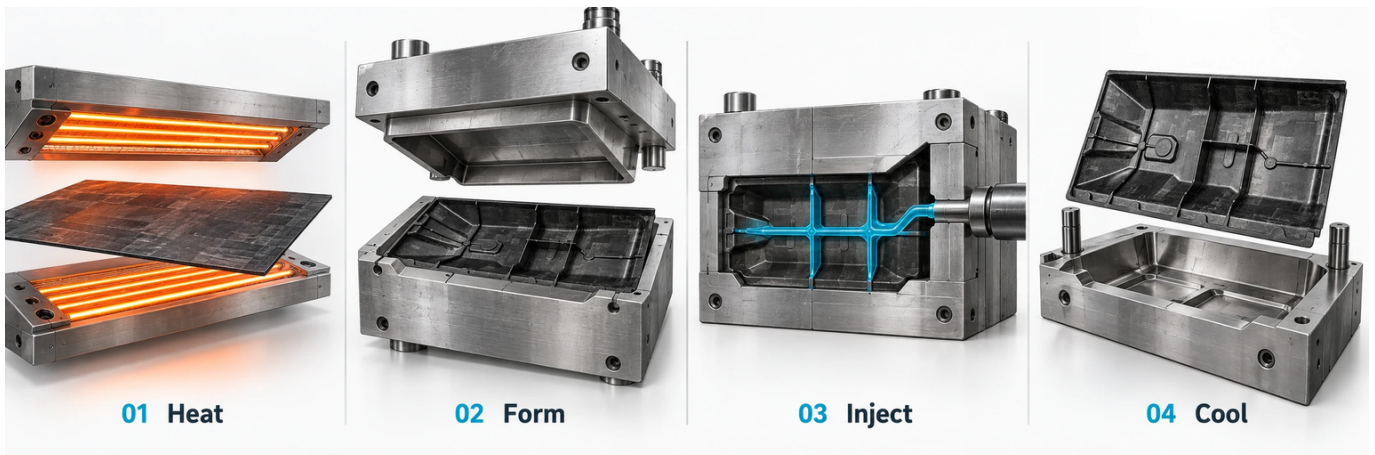


Composite surface



Injection-molded ribs

FROM UD TAPE TO A FUNCTIONAL COMPONENT



Heat and form the preform. Inject the ribs and functional details. Cool and release the finished component.

Automotive & Transportation

Continuous-fibre thermoplastic reinforcement for vehicle structures, protective components and lightweight panels.



Composite battery pack

Lower battery protection cover concepts.



Composite bumper beam

Continuous-fibre reinforcement for structural beam concepts.



Composite Bulkhead

Lightweight partitions; miniature prototype shown.



Load Floor

Carpet-covered automotive load floor panel.



Trailer Sidewalls & Load Floors

Thermoplastic composite panel applications for trailers and cargo bodies.

[Explore application details on the website](#)

Application

Tape formats and thermoplastic matrices open additional routes for reinforced products and sandwich structures.



Solar panel

Lightweight composite panel concepts.



Suitcase

Woven tape and laminate concepts for lightweight luggage shells.



Thermoplastic Composite Piping

Continuous-fibre tape reinforcement around an HDPE liner, with an HDPE jacket.



Pressure Vessels

Tape winding around a suitable liner; vessel design and testing match the service conditions.



Sandwich panel reinforcement

Structural skins around honeycomb, foam, MDF and other suitable cores.
Match fibre direction, interfaces and processing to the required load and service environment.

Give production scrap a new purpose

UD tape recycling solutions



UD tape scraps

Shredding →

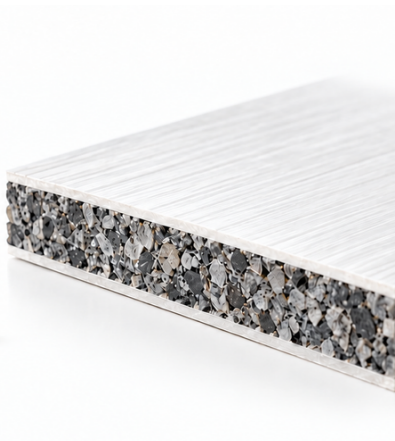


Shredded flakes



01 Compound

Recycled compound ready for injection molding.



02 Compound Core Panel

Recycled compound used as the core between continuous UDMAX skins.



03 Mosaic

Shredded UD tape flakes between polyester nonwovens.

More circular materials, with the potential for a lower carbon footprint. The recovery route depends on material composition, collection and the intended next use.

[Explore recycling solutions on the website](#)



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