

METYX®



MARINE

www.metyx.com



Photo Courtesy of Istanbul Metropolitan Municipality



Photo Courtesy of OYSTER



Photo Courtesy of SANLORENZO

ABOUT US



FROM DESIGN TO SERIAL PRODUCTION...

METYX is a leading global supplier of multiaxial (Non-Crimp Fabric), RTM, woven, vacuum bagging, vacuum infusion, surface veils reinforcements, plug and mold production, design, lab and engineering, core and fabric kitting services as well as well a local distributor of world-renowned resins, adhesives, chemicals, core materials, equipment, and consumables.

Over 80 years' experience in the textile industry; the last two decades in technical textile and composites...

METYX is an ideal solution partner from small to large-scale composites applications for wind energy, marine, automotive, infrastructure, industrial, leisure, and many other industries demanding high standards, know-how and creativity.

For all your needs in composites METYX is here for you!

An impressive portfolio of products and services enables METYX to offer the most complete composite solution on the market. Consult with METYX engineers for your specific needs to speed up your production, reduce the weight, increase the efficiency and/or the performance, and eventually decrease your production costs.

Committed to its partners around the world

METYX is represented in more than 30 countries around the world through distributors, producing at its six state-of-art production facilities in Turkey, Hungary and USA.

“
Our focus is always on our customers' needs. This is why we continue to invest in people and in new technologies to meet demands and exceed expectations. At the end, it is all about being able to offer all composite solutions under one roof.”

Mr. Ugur Ustunel

METYX Group CEO



Photo Courtesy of NUMARINE

One Stop Shop For Boatbuilders

METYX is a long established supplier of innovative, high quality technical textiles and other materials used by the leading boat and shipbuilders manufacturing with FRP composite.

Materials

Range of products covers all reinforcement needs

Fabrics suitable for all processes; closed molding, infusion, pultrusion and RTM/L-RTM

Hi-tech state-of-the-art fabrics:

- Fulfill design requirements/ material specifications
- Special fabrics developed for special needs (e.g. areal weight range, surface)
- E-glass, H-glass, aramid and carbon fiber based unidirectional (UD), biaxial, triaxial, combi mat & hybrid multi-axial and woven fabrics, standard fabrics and tapes, spread tow and customized solutions to meet specific needs are available to order
- Adaptation of materials to production process which means reduced cycle time and improved high quality production.
- In-house manufactured vacuum bagging and vacuum infusion consumables - peel plies, breather fabrics and flow meshes
- Kitting services from vacuum consumables, fabrics as well as cores such as PVC, PET, balsa
- Plug and mold production

Complete Package

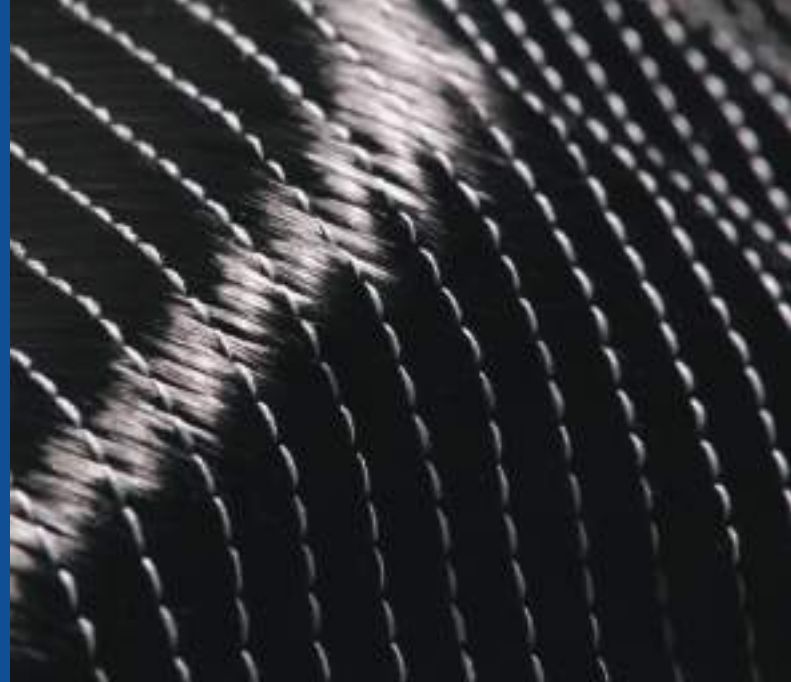
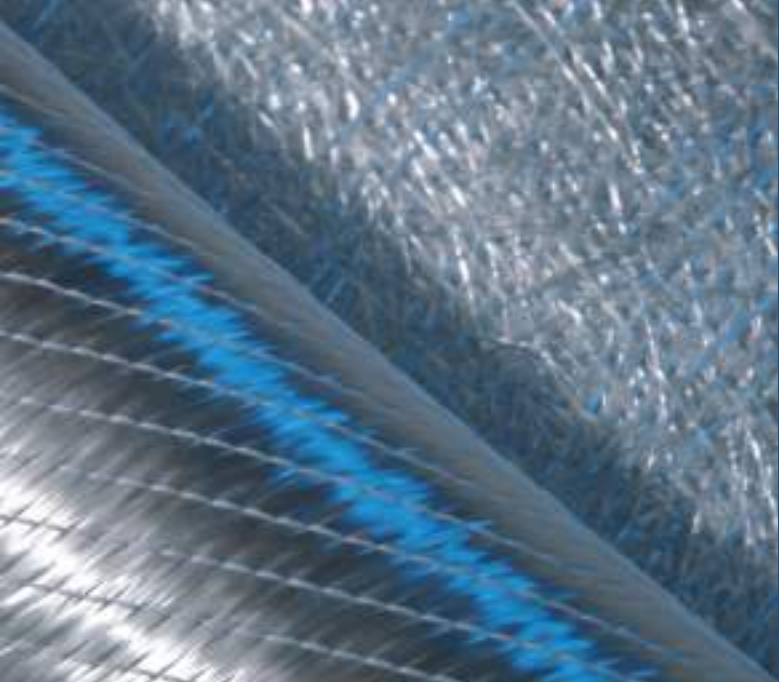
20+ years of experience in composite business with global players

Selection and delivery of suitable high-quality fabrics

- Kitting services for fabrics, cores (PVC, PET and balsa) and vacuum consumables
- Begins with design
- Engineering, tooling, prototype production, training
- Consulting service for technical problems
- Technical help on site with experienced engineers
- Process improvement (consulting, automation, customization)
- Coating technology and METYBOND (Woven or Non Crimped Fabrics products coated with e-glass, carbon and aramid with special adhesive.)
- Bought-in products from approved suppliers for Turkish market: Continuous filament mats (CFM), release agents, vacuum bagging consumables, bonding pastes and adhesives, resins and gel coats
- Closed mold injection equipment such as for Turkish market: Vacuum pumps, resin transfer molding and resin infusion injection machines

Please see the catalogue for a full range of METYX products & services.





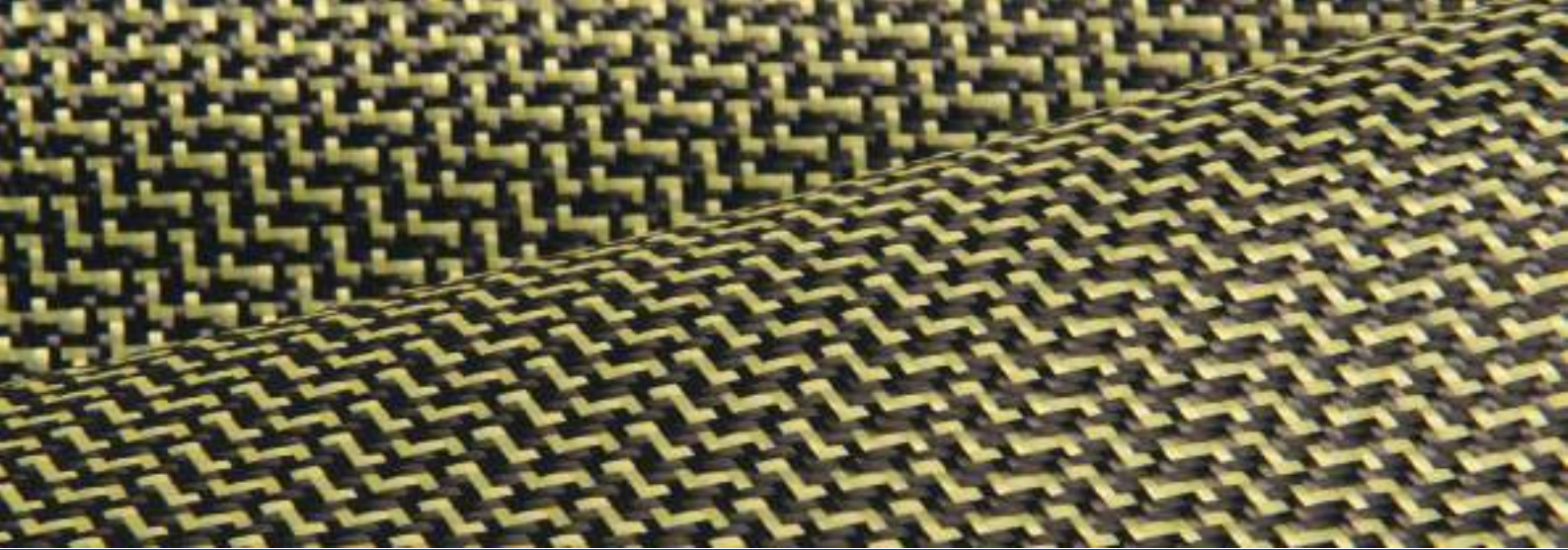
METYX helps boatbuilders to improve quality, increase production efficiency and reduce costs

Multiaxial reinforcements consist of one or more layers of unidirectional fibers, with multilayer fabrics being held together by a non-structural stitching thread. METYX offers multiaxial products in: E-glass, aramid, carbon fiber and hybrid combinations. High quality carbon fibers used to produce the range of multiaxial and woven carbon fabrics offered.

Product Range: Multiaxial (Non-Crimp Fabric), Wovens, Metycore

- Design freedom for naval architects
- Wide product range
- Innovative technology
- Flexible production
- Consistent high quality
- Reliable long-term supplier





Woven Fabric Reinforcements

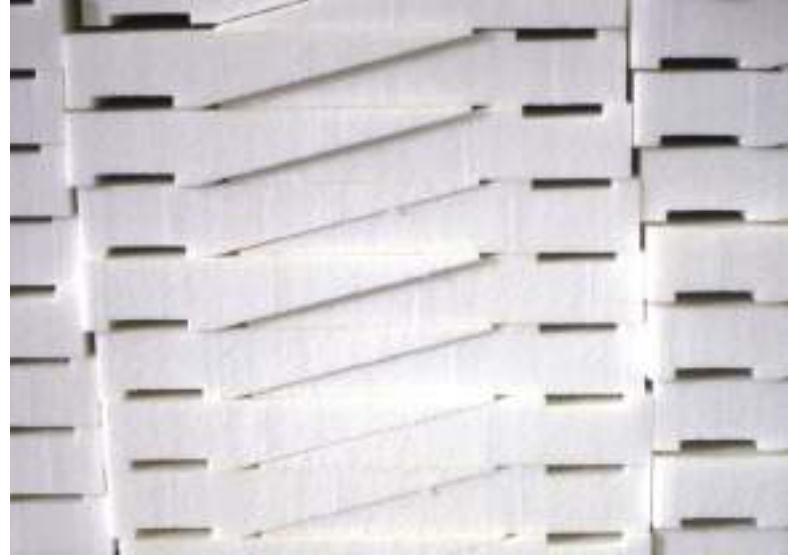
METYX woven fabrics are made by interweaving continuous fiber rovings to produce biaxial fabrics that can be used with most resin systems. Woven fabrics are typically used to increase the flexural and impact strength of a laminate.

Product Range:

Woven fabrics in sizes up to 350 cm wide

(100 gr/m² - 1,200 gr/m²) are available in e-glass, aramid and carbon fiber option





METYX Slicing & Kitting Services

A customized slicing and kit cutting service is provided for a wide range of cores, fabrics and vacuum consumables. Installed equipment includes 'state-of-the-art' 5-axis CNC processing centers for kitting, plus high productivity slicing machines, which rapidly cut to size foam block materials.

Core Material Kitting & Special Finishing

The kitting services cost effectively machine all foam core materials including PET and PVC. Finishing options include: grooved, perforated, scrim fabric applied, single/ double contoured or custom combinations. Kits are cut, shaped, and preformed as needed to the highest levels of accuracy, supplied with full traceability.

Fabrics & Vacuum Consumable Kitting

A kitting service is also offered for the complete range of METYX technical fabrics and vacuum consumables such as peel ply, flow mesh, and breather fabrics.



METYX Tooling Services



METYX offers fully integrated and highly specialized mold and plug solutions in short lead times and at very affordable prices worldwide. The METYX Tooling team has a prime engineering expertise in producing large scale composite plugs and molds exactly customized to the customers specifications.

Single and multi-split, FRP molds are produced for: hand lay, spray up, RTM, and infusion processes. While standard master plugs are designed and manufactured in-house using an epoxy tooling paste, FRP molds are produced from high quality, surface defect free master plugs.

Key METYX Master Plug

- Expertise in machining tooling board, PU and Epoxy paste plug making materials
- Shape stability, with 5-axis CNC milled accuracy and finish
- Large plug production capabilities - up to 10m x 6.2m x 4m
- High gloss polished surface finish – no imperfections
- Tested to ensure no vacuum leaks
- Modular production of single or multi sectioned plugs
- Integrated plug heaters can be specified.

Key METYX FRP Mold Tool Features

- Only quality UPR / VE / Epoxy tooling materials are used for high durability
- Mold shell supports as needed for tool life
- Excellent part production repeatability
- Water based heating system options
- Laser scanning
- QC documentation
- Mold commissioning





Laboratory & Testing Services

METYX offers extensive laboratory and rapid response testing services to marine customers. METYX laboratory specialists have expertise in hand lay-up, vacuum infusion, pultrusion, compression molding and laboratory scale production of composite laminates. Capabilities include permeability tests, textile testing, laminate and base materials testing to provide key physical, thermal and mechanical property data.

“In-house technical support and extensive composite engineering knowledge deliver a solution that is finely tuned to customer requirements, whether that is improved quality, more efficient production, reduced weight or higher performance.”



Quality Systems

METYX has ISO 9001 Quality, ISO 14001 Environmental and ISO 45001 Occupational Health and Safety Management Systems as well as ISO/IEC 27001 certifications. These standards ensure that all products and services are consistently provided to the very highest quality standards. Ongoing investments are made in the latest technologies available to ensure quality standards are maintained. Achieving top quality standards is a core value in our organization. METYX has gained a variety of independent accreditations and certifications needed to serve global OEMs over the years as well as DNV GL and Lloyds Register, accredited especially in the marine industry- approvals are taken for both glass and carbon fabrics.



METY CALC
composite
calculator **+** **-** **x** **÷**

CALCULATE

physical, mechanical and cost of fiber/matrix
composite constructions



Sustainability Policies

Businesses have an important role to play in protecting the planet as global economy drivers and have a responsibility to ensure natural resources such as water and energy, and the ecosystems that depend on these for operations are used carefully so future generations have access to a clean planet. METYX is also at the cutting edge of the rapid adaptation and innovative solutions needed to mobilize employees and customers to drive change. METYX is fully aware that has great influence over what and how materials are produced as well as on choosing suppliers and how and where the products are marketed. In acknowledging both impact and responsibility, the company embraces sustainability principles and consistently set high goals to meet carbon neutral requirements.



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