

TROCELLEN Light Weight Composites



GENERAL INFORMATION

New, innovative light weight solutions are essential to react to the increasing pressure of the automotive industry to reduce CO2 emissions.

Cross-linked PO foams of TROCELLEN are media resistant due to their closed cells and show good thermomouldability and temperature resistance.

Therefore they suit excellently for creating light and stabile sandwich composites.

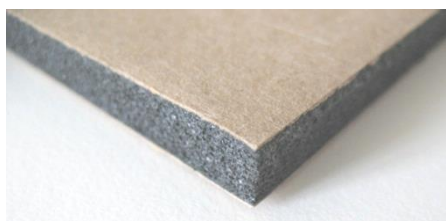
SANDWICH WITH PO FOAM + GLASS FIBRE



Sandwich with high-tensile outer layer and PO foam core

- good thermo mouldability
- media resistance
- PP glass fibre fleece: high tensile strength / good carrier function
- PO foam: light weight / excellent welding to PP glass fibre

SANDWICH WITH PO FOAM + PAPER



Sandwich with high-tensile outer layer and core of PO foam

- Outer layer of craft liner, glass fibre woven or basalt
- High stiffness at light weight
- Stiffness and weight can be adjusted by varying density and thickness of PO foam
- No water absorption due to closed cell foam
- Thermomouldability / fast compression moulding

SANDWICH WITH PO FOAM + RESIN AND GLASS FIBRE



Sandwich with high-tensile outer layer + bond bridge in PO core

- light weight, good use for resin vacuum process
- resin glass fibre woven: high tensile strength / excellent carrier function
- PO foam: no absorption of resin fluid, flexible forming

With additional materials polyolefin foams can be reinforced to create very light and stable composites. It is also possible to produce laminates with appealing surface and convenient haptics.

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PU-COMPOSITES WITH SOFT PO FOAM



Joint development of TROCELLEN and Bayer Material Science

- Bayer Baypreg honeycomb sandwich + layer of PO foam
- Optional PVC décor layer with high scratch resistance
- One step compression moulding without additional glue
- Baypreg F sandwich: very stiff at low weight / high temperature resistance and dimensional stability
- PO foam: soft touch / good sealing function / good acoustic damping

TEXTILE TRIM WITH PO FOAM



Textile with PO foam for trunk trim or flooring

- weight reduction compared to standard tri-laminate systems or standard heavy layer systems
- quick vacuum or compression forming process
- good barrier function / no media absorption

LDPE FOIL WITH PE FOAM



PE foam laminated with extruded PE foil

- excellent thermomoulding properties
- excellent adhesion between LDPE and foam
- PE foam: good sealing function / good surface protection
- PE foil: good scratch resistance / good carrier function

BUSINESS UNIT AUTOMOTIVE

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