Engineered from Waste

From flat to Form





Most fibres already exist — embedded in textile products



The raw material is already here — distributed across everyday textile applications.

Most textile fibre value is lost



50 + million tonnes of textile waste annually

Complex fibre blends limit recycling

Structural fibre value remains unused

Too valuable to downcycle

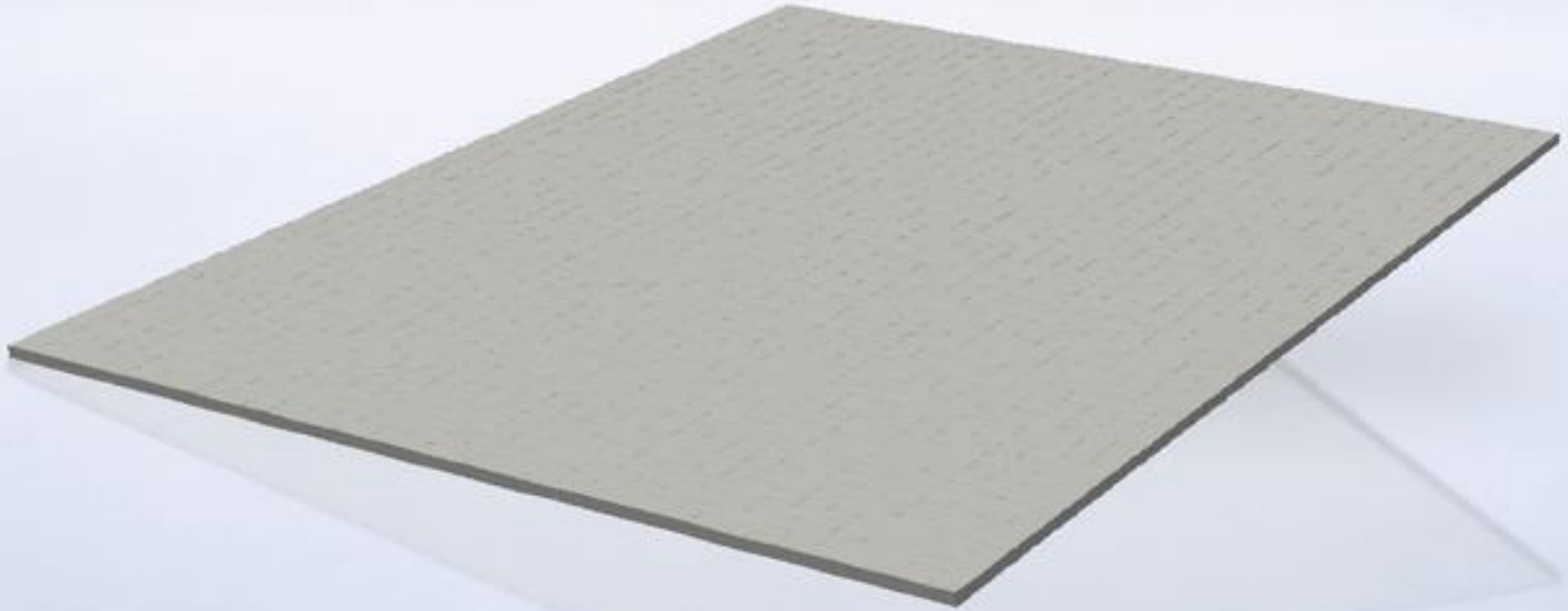
A RECYCLING CHALLENGE

Elastane in textiles

Stretch in use.
A challenge in recycling.



Illustrative visual · European Commission, Textile Strategy, 2022

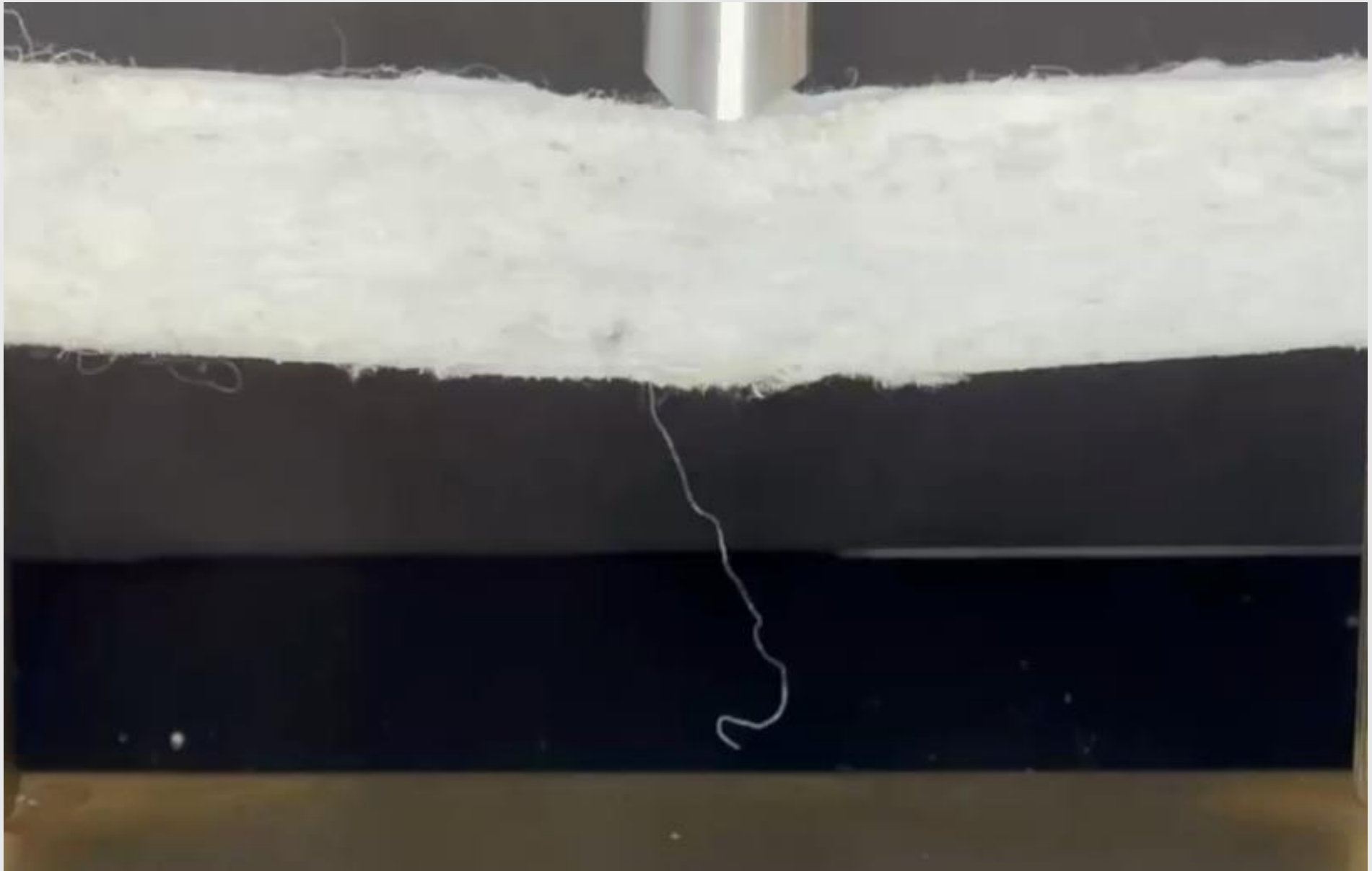


Thermoformable by design



Flat sheets can be thermoformed into curved structures and new product geometries

Absorbs Force
Returns to Shape



Nature builds strength through fibre architectures

Strong materials emerge when fibres form connected, organised structures.

The fibre network keeps the panel light

CURRENT TEXBOARD® PANEL

≈300

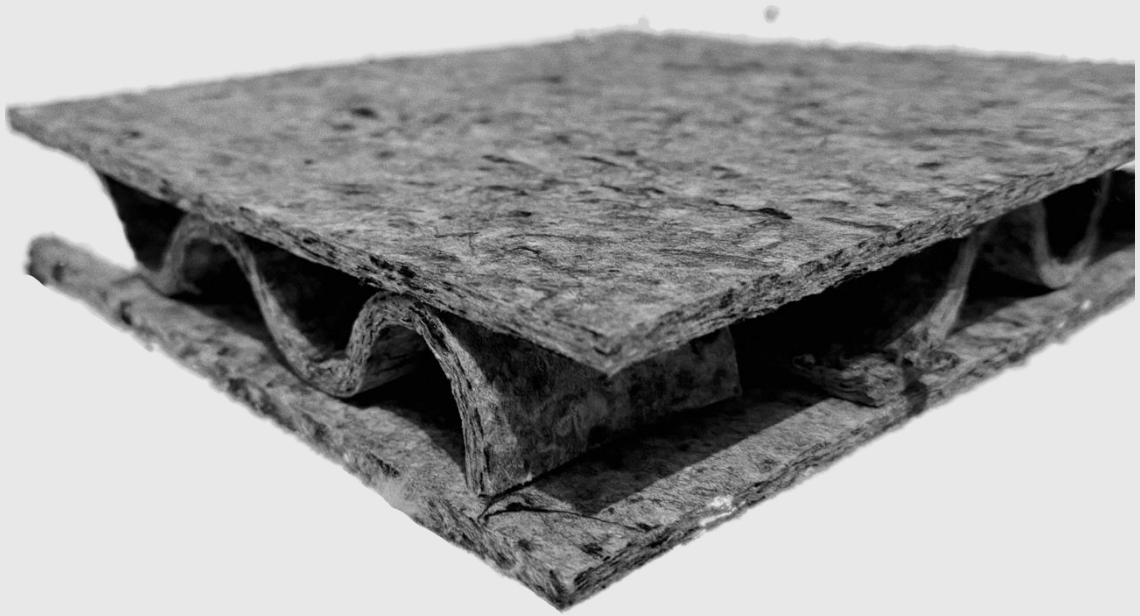
kg/m³

STANDARD MDF

700–800 kg/m³

Connected long fibres leave space for air

More air through panel geometry

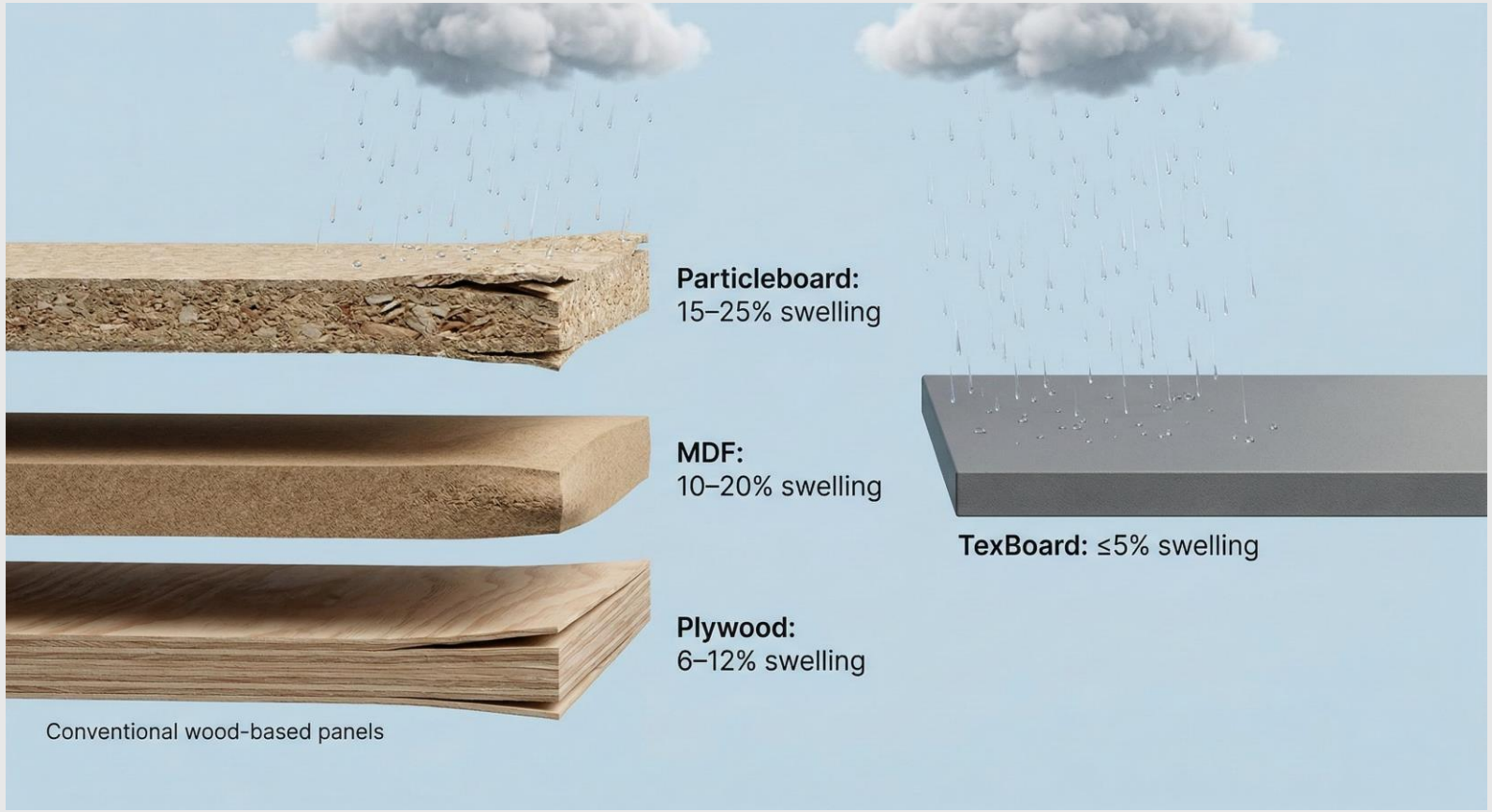


Wave-shaped core



Spacer elements

Minimal swelling under water exposure



Where wood-based panels swell — TexBoard® remains dimensionally stable.

Based on internal test results and literature values for wood-based panels.

Water uptake with little swelling



CONCEPT: COOLING SLEEVE

LOW SWELLING

The panel retains its shape in the water comparison shown before.

CAPILLARY UPTAKE

Water enters the fibre structure. The sleeve absorbs it and gains weight.

SOAK **FREEZE** **USE**

70 minutes later

The Cool Sleeve slows surface warming

WITHOUT SLEEVE



14.2°C

Start 9.2°C

WITH COOL SLEEVE



9.2°C

Start 9.0°C

5.0°C difference at the bottle surface

Prototype test · infrared measurement on the bottle surface

How recycled textiles become TexBoard

Recovered textile fibres are blended with low-melt binder fibres before web formation.

01 Textiles to fibres



Recovered fibres

02 Blend the fibres



Add low-melt fibres

03 Form the web



Airlay fibre web

04 Heat and press



TexBoard® panel

Representative machinery. Image sources Websites Dell'Orco & Villani, Technoplants.

PATENT PENDING

TexBoard® application segments



Interior Panels



Design Surfaces



Retail / Shopfitting



Acoustic Panels



Structural Panels - Kitchen



Structural Panels - Bedroom

A modular fibre-based material platform for interior, furniture, retail and acoustic applications.

New Structural Possibilities

When materials become elastic, design becomes a new language.

From flat panels to continuous forms.
Lightweight. Resilient. Thermoformable.



Resilient Seating
Elastic structures that adapt, absorb and return.



Thermoformed Geometry
Complex curves and integrated functions with minimal material.



Acoustic & Spatial Solutions
Curved, sound-absorbing structures for better spaces.



Lightweight Living
Strong enough to support.
Light enough to rethink everything.

These are not products – they are directions. Together with our partners, we turn material potential into real-world solutions.

From open applications to a possible loop

A formed shoe component could bring reclaimed fibres back into a product we wear.



FLAT TEXBOARD® PANEL

FORMED SHOE COMPONENT

Closed-loop potential depends on a tested return path.

From textile waste to a slipper

A first TexBoard prototype made with reclaimed textiles.



Recovered textiles: thick Wenatex based core, Millefiori top and thin black outsole



Let’s explore what becomes possible.

Dr. Dieter Eichinger
CEO & Co Founder
TexBoard GmbH