



WEIDMANN

CELOVA

**THE LEADING PRODUCER OF
TAILORED MICROFIBRILLATED CELLULOSE**



WEIDMANN GROUP



Leading solution provider
in electrical, medical and
fiber technology



Founded in 1877; over
140 years of experience
with cellulose



Privately held
Turnover 2017: 367 MCHF
Employees 2017: 3'165

WEIDMANN ELECTRICAL TECHNOLOGY

THE IMPORTANCE OF TRANSFORMERS



Large-scale energy distribution

Powering your entire city

Backbone of energy network

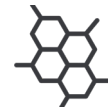
Operation without interruption

Impact reliability and profitability

WEIDMANN ELECTRICAL TECHNOLOGY TRANSFORMERBOARD



Base insulating material



Cellulose based



Latest manufacturing technology



Resists high stresses

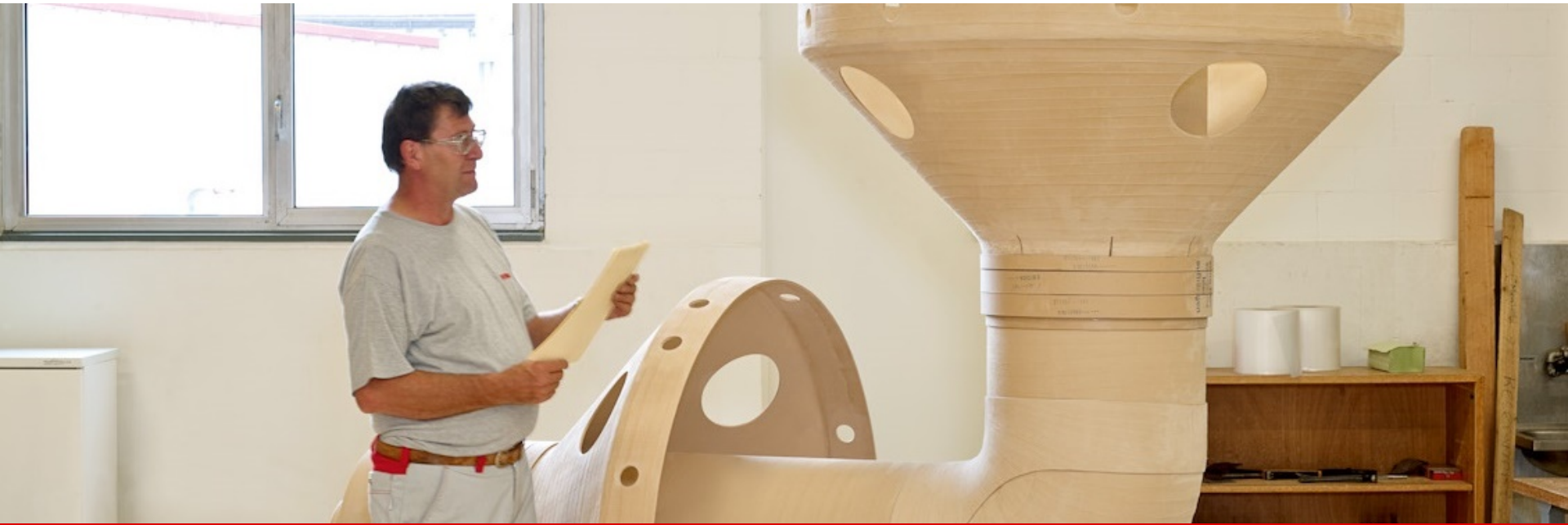


Enhanced reliability,
efficiency and safety



Assured reliability of transformer

WEIDMANN ELECTRICAL TECHNOLOGY INSULATION COMPONENTS



Oil immersed, special fluids,
dry or gas filled



Tailor-made solutions



Cellulose and synthetic



Largest product portfolio

WEIDMANN MEDICAL TECHNOLOGY CLEAN ROOM MANUFACTURING

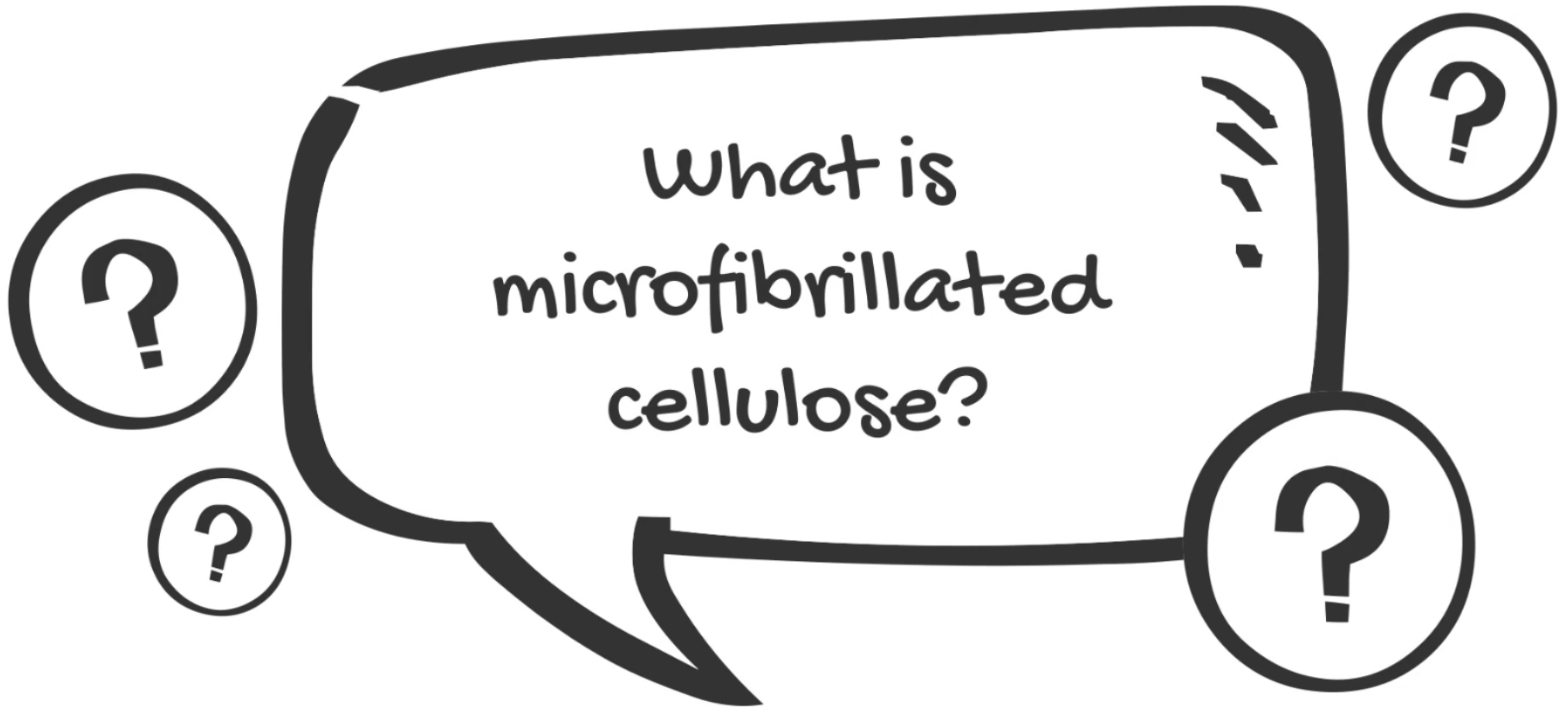
- Clean room class 7 / 8
- Injection molding
- Assembly and automation
- 100 % inspections
- Clean room storage

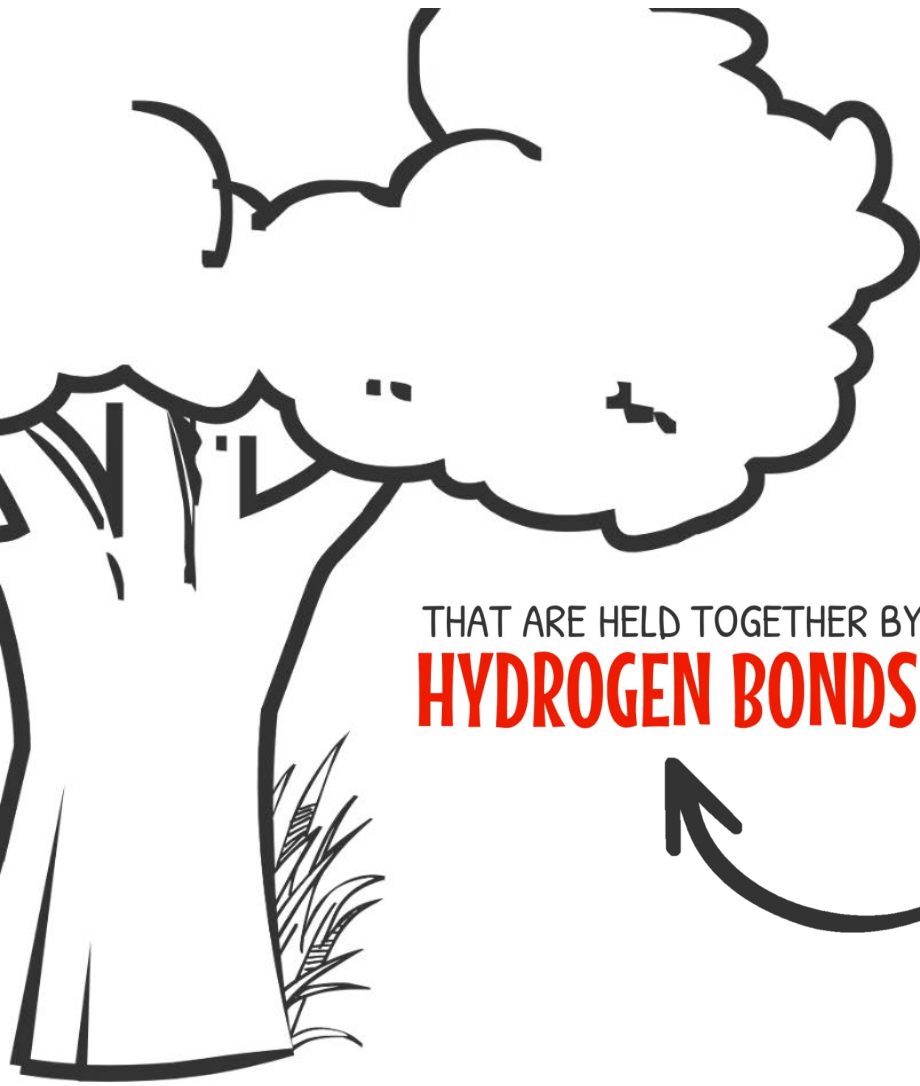


WEIDMANN FIBER TECHNOLOGY



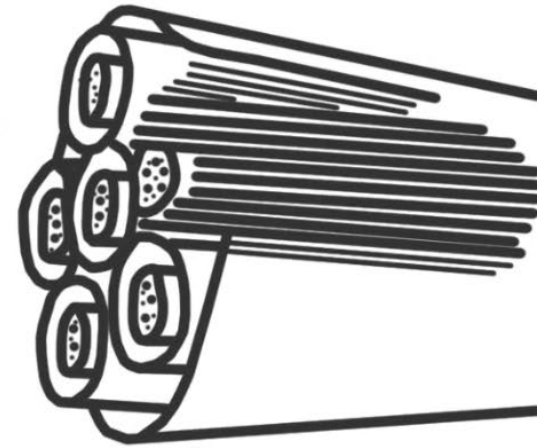
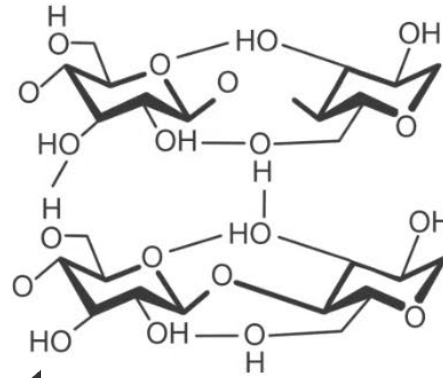
PASSION FOR FIBERS





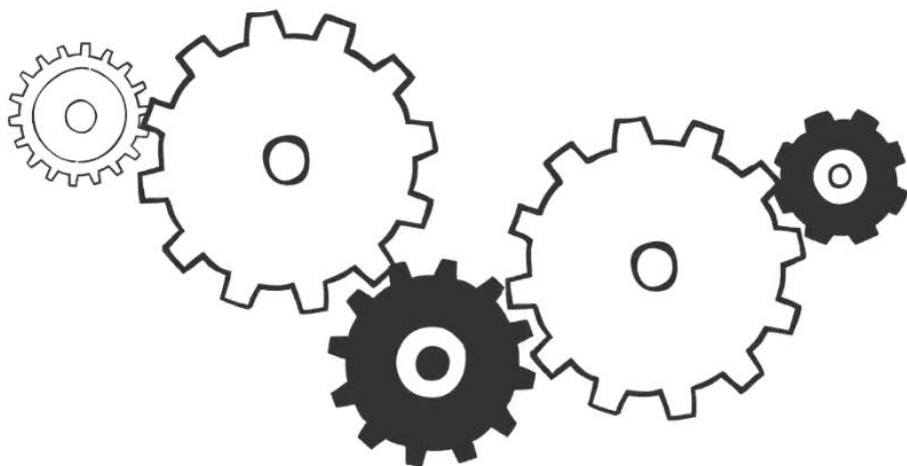
BUILT UP BY A CELLULOSE
FIBER MATRIX

THAT ARE HELD TOGETHER BY
HYDROGEN BONDS



INTRODUCTION

CELOVA



PREVENT

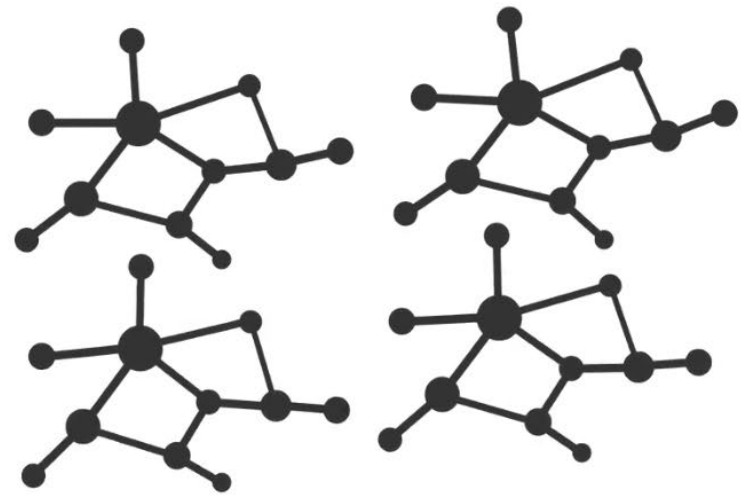
REFORMATION OF THESE BONDS



INTRODUCTION

CELOVA

PROVIDING A VERY HIGH
SURFACE AREA



GEL-LIKE
WATER BASED SUSPENSION

INTRODUCTION

CELOVA



SUSTAINABLE ALTERNATIVE TO
PETROCHEMICALS

INTRODUCTION

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APPLICATIONS INCLUDE:

Paper & Board

Food

Cosmetics

Coatings

Biotechnology


Art Conservation

Insulation



INTRODUCTION

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WHY CELOVA® MICROFIBRILLATED CELLULOSE?

Bring additional functionalities

Enhance product properties

Increase processability

Natural substitute for
petrochemicals

WHAT TO TAKE HOME ?



Natural & Sustainable



Gel-like Suspension



New Properties



Purely Mechanical Process



Micro-network Structure



Performance



Tailor Made



High Surface Area



Process
Optimization

CHARACTERIZATION OF CELOVA

Primary Quality Criteria

Specific Surface Area

Morphology:

- Particle Size Distribution
 - Aspect Ratio
-

Surface Charge

Secondary Quality Criteria

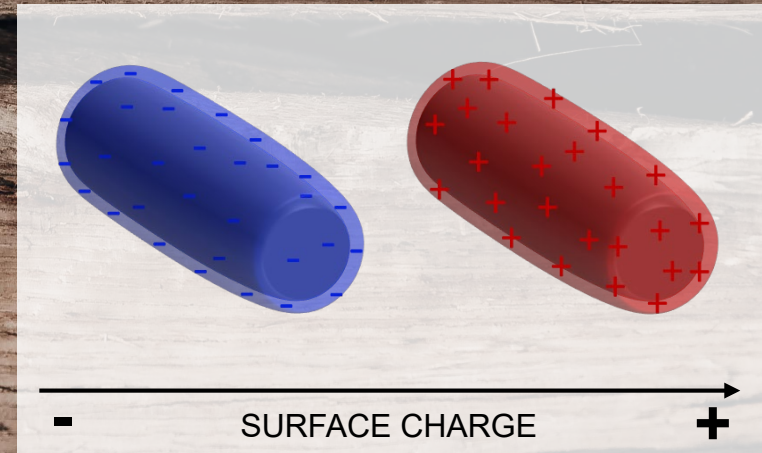
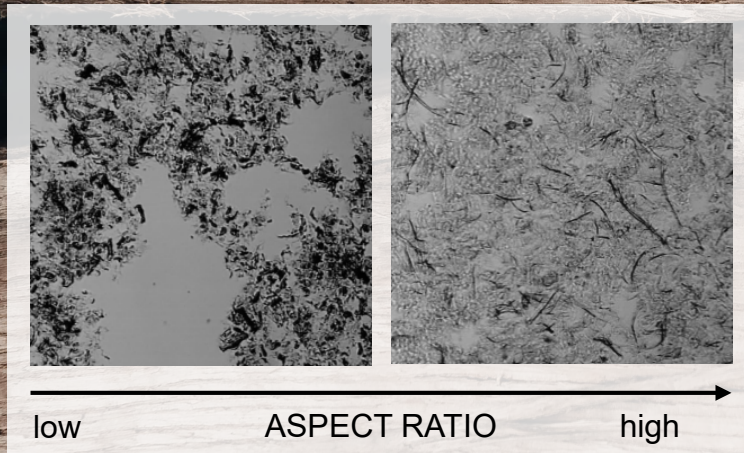
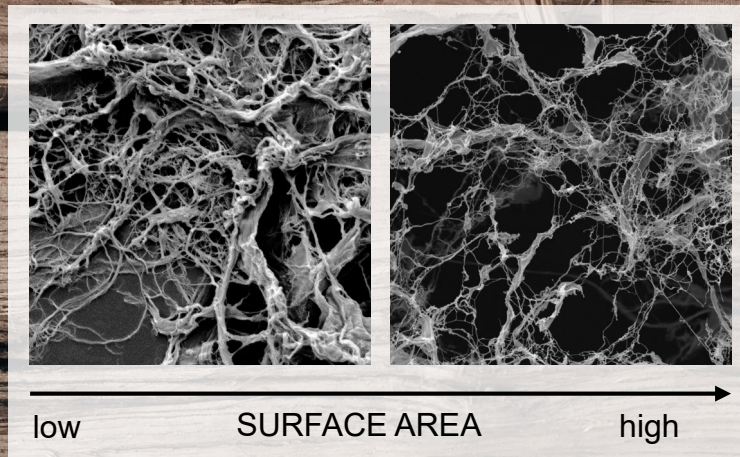
Viscosity

Water Retention Value

Transparency



TYPES OF MICROFIBRILLATED CELLULOSE





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PASSION FOR FIBERS