CellMat Technologies

TECHNOLOGY & INNOVATION IN FOAMS TO THE SERVICE OF THE INDUSTRY

CELLMAT TECHNOLOGIES – WHO ARE WE?

CREATED IN 2012, CELLMAT TECHNOLOGIES IS AND R&D COMPANY FOCUSED ON THE FIELD OF POLYMERIC FOAMS

THE COMPANY IS MADE UP OF SCIENTIST WITH A HIGH LEVEL OF EXPERISE IN THE PRODUCTION, CHARACTERIZATION AND MODELLING OF THESE MATERIALS

Our Vision & Objectives

OUR MAIN TARGET IS TO HELP OUR INDUSTRIAL PARTNERS BY APPLYING & TRANSFERING OUR SPECIALIZED KNOW-HOW IN THE FIELD OF CELLULAR MATERIALS AND BIOPLASTICS IN THEIR PROCESSES AND PRODUCTS SO THEY CAN IMPROVE THEIR COMPETITIVENESS

CellMat Technologies has a key objective to be a reference company in the transfer of both know-how and technology to the industrial sector, thus generating an increment of competitiveness for our partners in short periods of time and with low investments.

TRANSFER OF KNOWLEDGE AND TECHNOLOGY TO THE INDUSTRY IS A ESSENTIAL FACTOR TO IMPULSE GROWTH AND DEVELOPMENT.

Our Leitmotiv – The Foams

FOAMS ARE, LITERALLY, EVERYWHERE

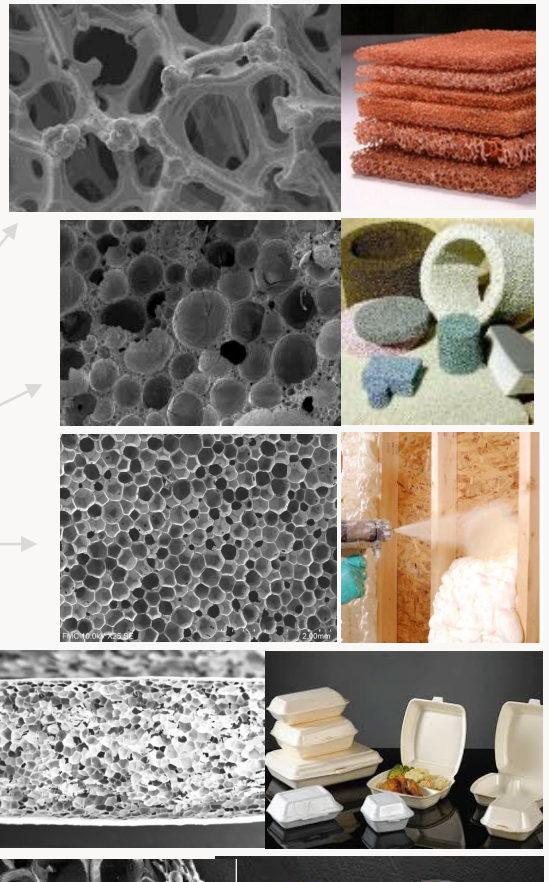
NATURAL CELLULAR MATERIALS

TWO-PHASE MATERIALS

GAS PHASE
SOLID PHASE

THE CELLULAR STRUCTURE

SYNTHETIC CELLULAR MATERIALS



TRAINING COURSES

TRAINING COURSES

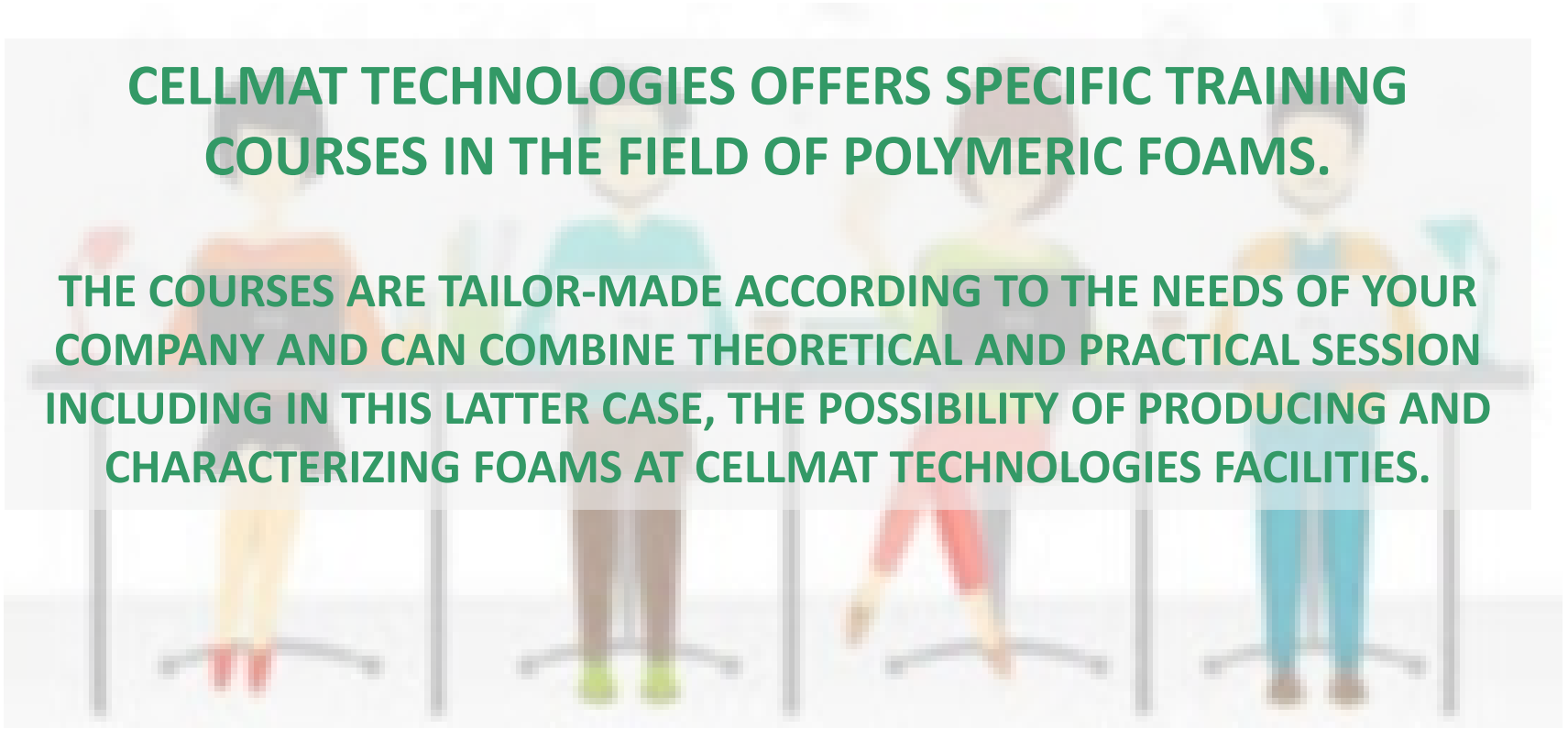
Training courses for your staff. Let your company gaining knowledge in foams.

- Tailor-made courses in the field of polymeric foams.
- Duration and intensity adapted to your needs.
- Possibility of combining theoretical and practical sessions.

TRAINING COURSES

Specific Training Courses

Training courses for your staff. Let your company gaining knowledge in the foams field



CELLMAT TECHNOLOGIES OFFERS SPECIFIC TRAINING COURSES IN THE FIELD OF POLYMERIC FOAMS.

THE COURSES ARE TAILOR-MADE ACCORDING TO THE NEEDS OF YOUR COMPANY AND CAN COMBINE THEORETICAL AND PRACTICAL SESSION INCLUDING IN THIS LATTER CASE, THE POSSIBILITY OF PRODUCING AND CHARACTERIZING FOAMS AT CELLMAT TECHNOLOGIES FACILITIES.

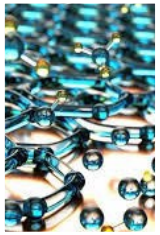
TRAINED STAFF & SPECIFIC KNOW HOW TO HELP YOUR STAFF GAINING KNOWLEDGE

CELLMAT TECHNOLOGIES – WHAT DO WE OFFER?

PILOT PLANTS - LABORATORY SCALE FOAM PRODUCTION PROCESSES

EVALUATION & QUANTIFICATION OF FOAMING MECHANISMS

CONVENTIONAL & ADVANCED CHARACTERIZATION TECHNIQUES FOR FOAMS



DEVELOPMENT OF TAILORED FORMULATIONS & PRODUCTS

SUSTAINABLE SOLUTIONS FOR FOAMING APPLICATIONS

AUTO Cell

SPECIFIC SOFTWARE FOR ADVANCED FOAM ANALYSIS

TRAINING COURSES

PROPIETARY TECHNOLOGIES

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Our developments in the field of polymer foams.

- **OpenCellMat** – Technology to produce open cell crosslinked polyolefin foams.
  - Similar properties to that of flexible PU but based on polyolefins.
  - Different grades as a function of density & tortuosity.
- **nCell** – New technology to produce nanocellular polymers.
  - Novel materials with cell sizes in the nanoscale.
  - Transparent and thermal insulators at the same time.

PROPIETARY TECHNOLOGIES

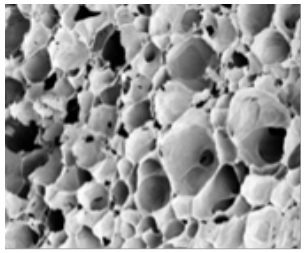
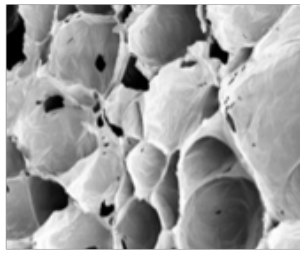
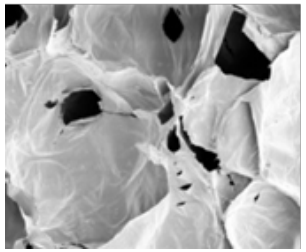
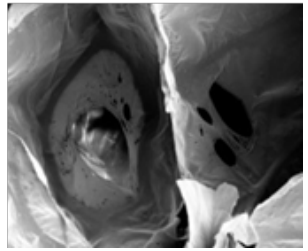
OpenCellMat

New technology to produce open cell crosslinked polyolefin foams

KEY ASPECTS:

- SIMILAR PROPERTIES TO THAT OF FLEXIBLE POLYURETHANES BUT BASED ON A POLYOLEFIN MATRIX (PE, EVA, EBA)
- DIFFERENT GRADES AS A FUNCTION OF DENSITY & TORTUOSITY

CHARACTERISTICS:

- TWO STEPS COMPRESSION MOLDING
- POLYOLEFIN MATRIX – ISOCYANATE FREE
- LOW DENSITIES: 15 – 60 kg/m3
- HIGH OIL ABSORPTION: UP TO 40 g/g
- THERMOFORMABLE
- HIGH ACOUSTIC ABSORPTION
- LOW THERMAL EXPANSION
- HIGH THERMAL RESISTANCE

APPLICATIONS:

- AUTOMOTIVE SEATS
- CUSHIONS
- MATTRESSES
- SEALS
- OIL ABSORBERS
- ACOUSTIC ABSORBERS
- BODY PROTECTION

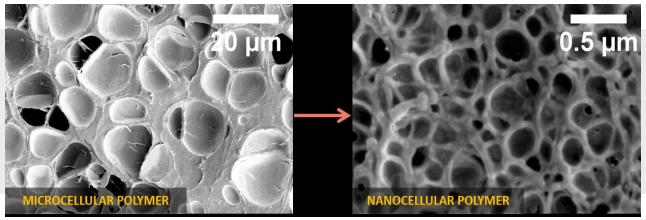
PROPIETARY TECHNOLOGIES

nCell

New technology to produce nanocellular polymers based on PMMA that can be transparent and thermal insulators at the same time

KEY ASPECTS:

- NOVEL GENERATION OF MATERIALS WITH CELL SIZES IN THE NANOSCALE



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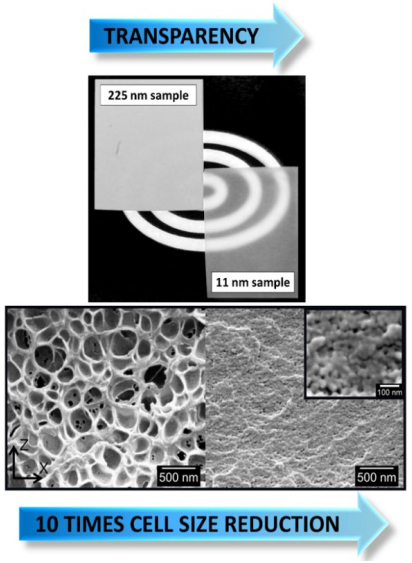


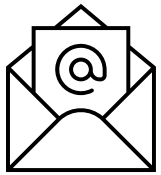
- RELATIVE DENSITY: 0.15 - 1.0
- OPEN OR CLOSED CELL STRUCTURES
- REDUCED THERMAL CONDUCTIVITY – KNUDSEN EFFECT
- TRANSPARENT WHEN CELL SIZES ARE BELOW 50 nm
- BETTER MECHANICAL PERFORMANCE THAN MICROCELLULAR FOAMS
- CONVENTIONAL RAW MATERIALS
- POSSIBILITY OF UP-SCALING

APPLICATIONS:

- THERMAL INSULATING BOARDS
- CORE OF VIP PANELS
- SUBSTITUTION OF SILICA AEROGELS
- TRANSPARENT THIN FILMS
- PANELS WITH HIGH STIFFNESS & LOW WEIGHT
- SUPPORT FOR CATALYSTS & SENSORS
- FILTERS

ACKNOWLEDGEMENTS

THANK YOU SO MUCH FOR YOUR ATTENTION!!



CONTACT US FOR FURTHER INFORMATION

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