

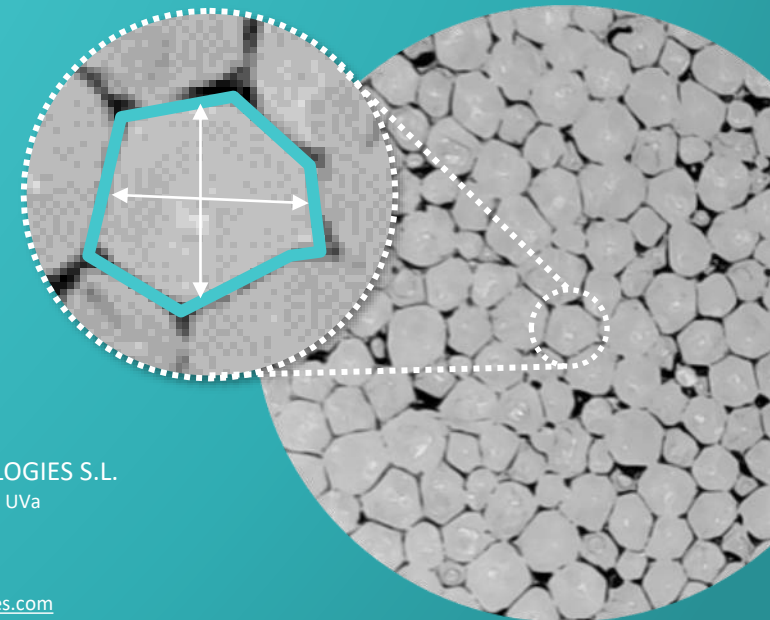
# AUTOCELL in a nutshell...

- **It is very quick:** the analysis can be done in less than 5 minutes. You save time in preparing the samples, in taking the micrographs, and in using the software: **THE CELLS ARE SEGMENTED AUTOMATICALLY.**
- **It is good value for money:** the micrographs are taken with cost-effective digital microscopes and the tools needed are cheap.
- **It is accurate:** the structure can be analyzed either in 2D or in 3D and it provides a full set of structural parameters enough to understand your structure in detail and relate them with physical properties.
- **It is reliable:** since the cell segmentation is automatically done by the computer it is user-independent.
- **It is easy to use:** the sample preparation is simple, and the software guides you during the whole analysis process.
- **It is versatile:** It can be used either in production lines or in R&D facilities.

*The key to unlock the structure and the properties of polymer foams!*

# AutoCell

A quick, accurate and cost-effective tool to characterize the structure of your foams and to understand their properties



CELLMAT TECHNOLOGIES S.L.

Edificio Parque Científico UVa  
Paseo de Belén 9A  
47011, Valladolid, Spain  
+34 983 189 197  
[info@cellmattechnologies.com](mailto:info@cellmattechnologies.com)  
[www.cellmattechnologies.com](http://www.cellmattechnologies.com)



# WHAT IS AutoCell?

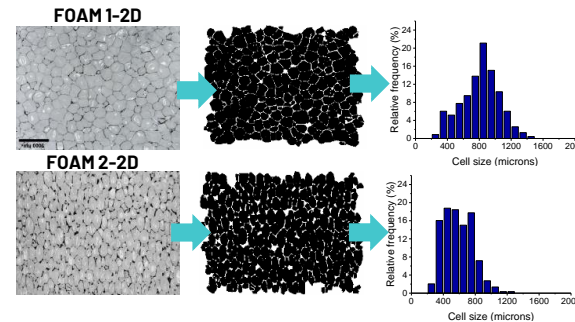
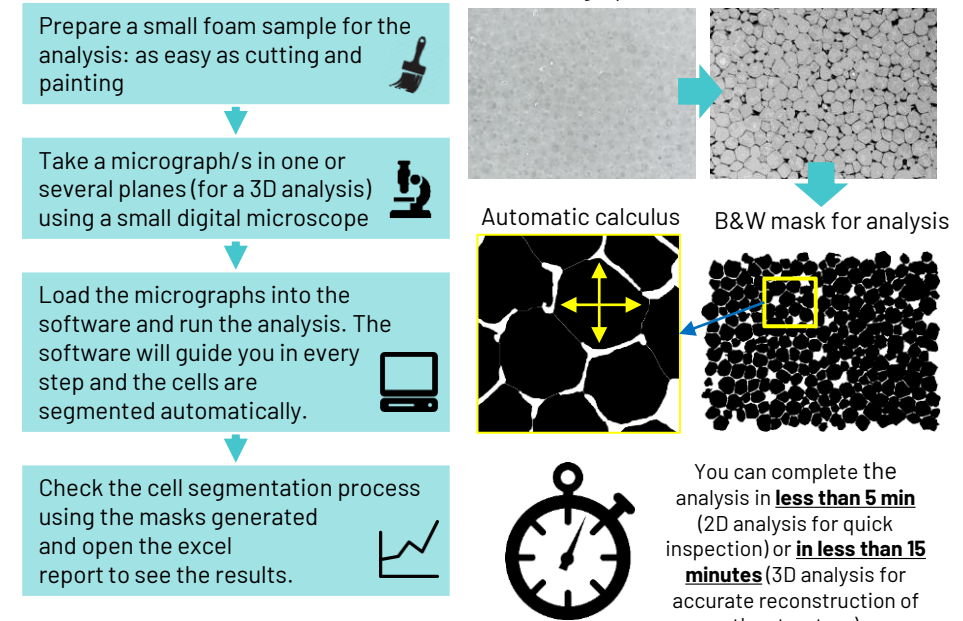
- AUTOCELL is both a methodology and software specifically designed for polymer foam manufacturers and researchers to characterize the cellular structure of any type of foam in a *quick, accurate, and cost-effective* way.
- One of the main novelties of AUTOCELL lies in the use of optical microscopes, which reduce a lot of the investment needed in equipment and the times for sample preparation and micrograph capturing.
- There are many image analysis software available that can be used to characterize the cellular structure of foams, but they are not specifically designed for this purpose, so the user ends up spending a lot of time optimizing the sample and the image for the analysis.
- The software used in AUTOCELL has been specifically designed for this purpose so that it covers the analysis of very different typologies of structures regarding cell size, open or closed cells, anisotropy, and so on, and very different types of foams: rigid or flexible, polymers, sizes, colors.
- We have put all our know-how in foams into the development of a unique tool at the service of the polymer foam industry.

## AUTOCELL BRINGS THE BEST OF SCIENCE TO THE POLYMER FOAM INDUSTRY

### ARE YOU INTERESTED?

- Contact us by e-mail or phone and let us know what type of foam you produce and what structural parameters you are interested in.
- We will do a first analysis free of charge so that you can evaluate if the results live up to your expectations. Just send us your foams.
- If you buy AUTOCELL, we will send you the software, the microscopes and the tools required to prepare the sample.
- We will train you on how to use AUTOCELL. The training can be given online or face-to-face and it's included in the price.
- We don't let you alone afterwards. We will be assisting you whenever you have doubts until you make sure how to use it properly.

### HOW TO USE IT?



Parameters	FOAM 1	FOAM 2
Cell density 1 (cells/cm)	19.5	25.5
Cell density 2 (cells/cm <sup>3</sup> )	$7.5 \cdot 10^3$	$1.7 \cdot 10^4$
Cell size ( $\mu\text{m}$ )	779.8	586.6
Anisotropy	0.96	1.33
Standard deviation	222.4	184.3
NSD	0.29	0.31
Assymetry	-0.12	0.48

