



Leica EM TIC020 –

Cross Section of Glass Fibres Reinforced Polyamide

Market: Polymer industry, Research Institutes, Universities

Companies (e.g.): SAX Polymers Industrie AG, abcpolymer, etc.

Living up to Life

Leica EM TIC020 Application No. 2/5

Cross Section of Glass Fibre Reinforced Polyamide

Problem:

- The fragile glass fibre gets broken during mechanical polishing. A lot of cracks and broken fibres influence the image analysis.

Goal:

- Cross section of glass fibre reinforced polyamide to make a high accuracy image analysis of the glass fibres.

Process description (benchmark values for this particular sample):

Parameter	
Acceleration voltage	6 kV
Gun current	2.3mA
Milling time	2.5 h
Cut depth	300 µm
Pre-preparation	EM TXP (6µm diamond)

Results:

- No cracks are visible on single fibres in the cross section, which would occur by mechanical preparation.
- The image analysis can be done at a high accuracy level, as there are no cracks which would divide the glass fibre into surreal amount.

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