

Basis Weight Measurement for Carbon Fibers DATA SHEET - EddyCus® CF map 4040BW

The EddyCus® CF map 4040BW is especially designed for non-contact measurement of local basis weight in carbon fabrics. CF textiles are scanned with a local resolution of 1x1 mm² to display the uniformity of carbon fiber density (**basis weight map**). Process engineers can use this BW-map to evaluate samples such as spread UD tapes and non-woven fleece or chopped carbon fiber composites and organic sheets. Particularly, the

outcome of recycled carbon fibers parts can be analyzed with this EddyCus® system.

Further, the dominant fiber orientation can be determined within such short fiber composites, too. Other customers are using this NDT to investigate conductive coatings or resin. In sum, the EddyCus® systems can provide interesting insights on intermediate and recycled carbon fiber products.

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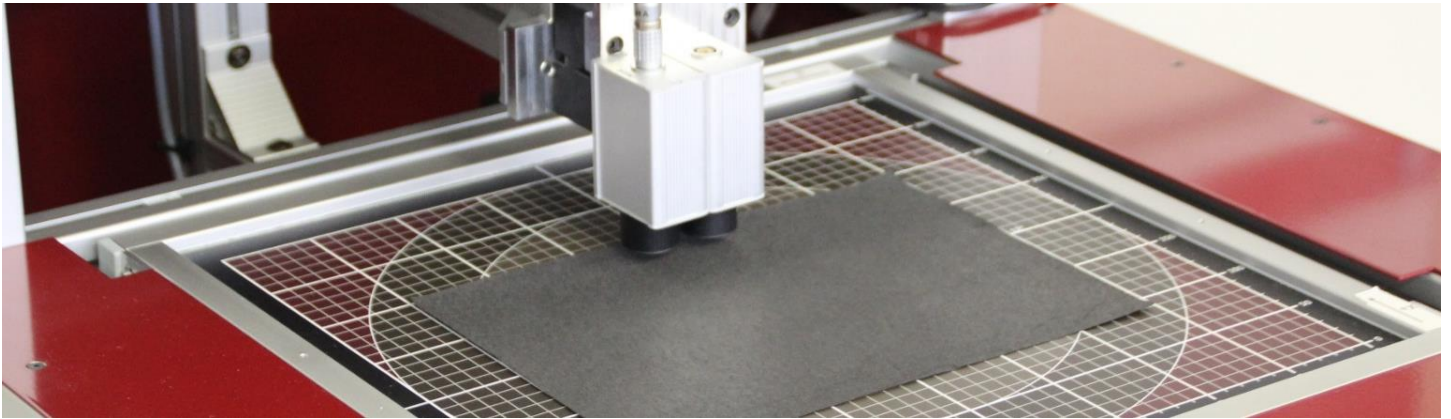
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Understanding
carbon fiber materials.



DATA SHEET

EddyCus[®] CF map 4040BW – Basis Weight Measurement



EddyCus[®] CF map 4040BW

Measurement	Uniformity of basis weight, CF density, CF volume fraction
Scan area	400 x 400 mm ²
Min. pitch	1 mm
Speed	400 mm/sec
Add-ons	Camera for positioning, distance sensor for thickness
Device size (w/h/d)	70 x 107 x 110 cm

BASIS WEIGHT MEASUREMENT

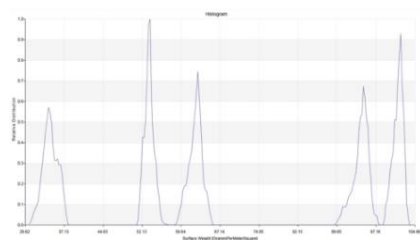
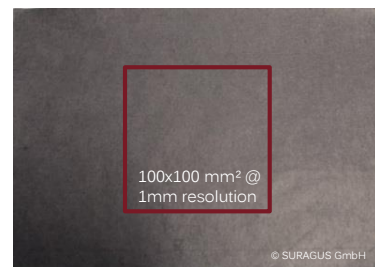
Applications

- Non-contact mapping of local basis weight
- Non-destructive measurement of uniformity of carbon fiber density/volume fraction
- Evaluation of conductive coating or resin
- Suitable for intermediate and recycled CF products such as non-woven CF fabrics, CF fleece or recycled short CF, CF SMC, CF UD tapes

Benefits

- + Non-contact, coupling-media free
- + Full penetration of entire sample
- + Applicable to carbon fabrics
- + Adaptive system
- + Presence of binder or matrix irrelevant

NON-WOVEN CARBON FLEECE



Histogram provides information on the uniformity of the specimen. The sharper, the more uniform.



Three out of five samples from the histogram are displayed.