



Skadestudie av tunna kolfiberarmeringar

Andreas Martsman – Oxeon AB

SMF Flyg-seminarium
Försvvarshögskolan, Stockholm
6 mars 2017

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Agenda

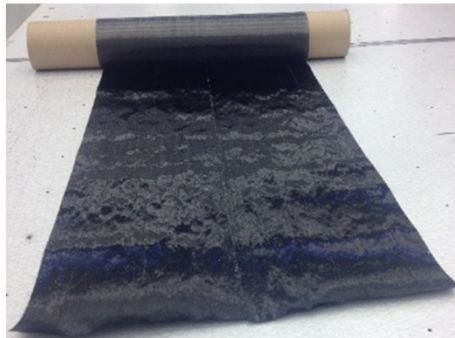
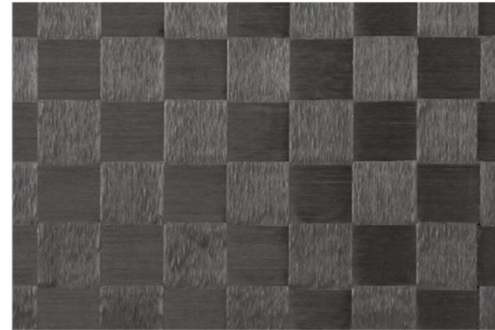
- Vad är TeXtreme
- Skadestudie – SMF-F checkar och dess möjligheter
- Oxeons utökade erbjudande

Vad är TeXtreme®

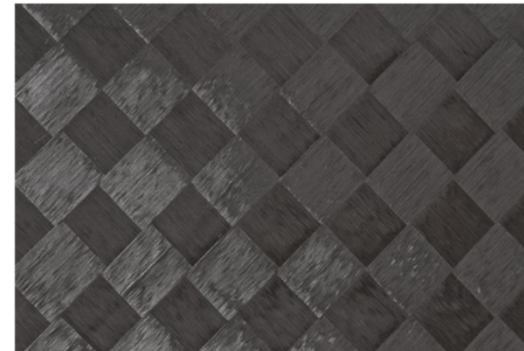
Smal UD



Väv[0/90]



Bred UD



Väv [+/-45]

Vad är TeXtreme®

- Låg variation
- Hög Vf
- Minskad vågighet
- Minskad vikt
- Lägre skjuvspänningar
- Hög in-situ styrka

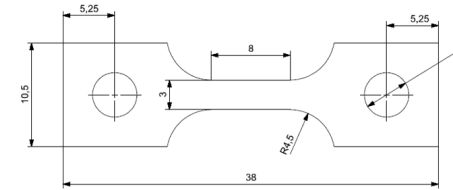
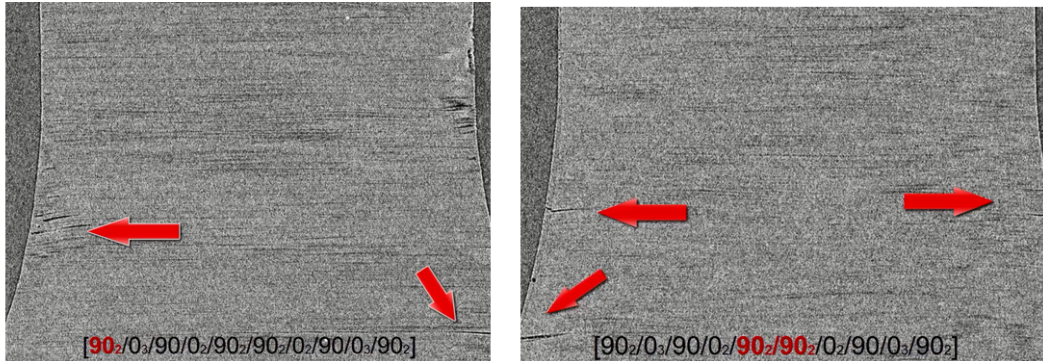


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Skadestudie - SMFF

Results from Tomography

Plate A = $[90_2/0_3/90/0_2/90_2]_s$



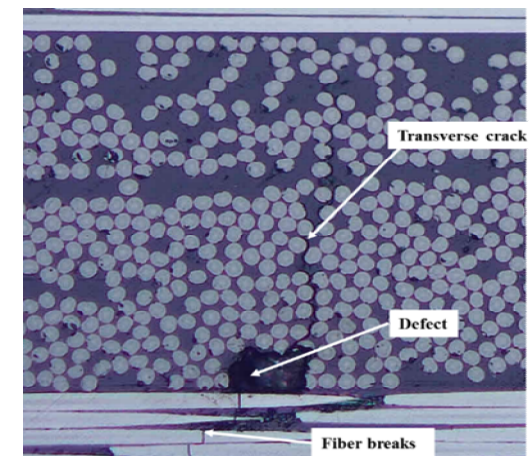
Step	1	2	3	4
Strain	0	0.5%	0.7%	0.9%
Calculated load (N)	0	1000	1500	1900

- Microcracks started to appear at 0.7% of applied strain (1500N)
- The thinnest layers do not contain cracks
- Microcracks are initiated from the edge of the specimen and they do not propagate along the whole width

Plate B = $[0_2/90_3/0/90_2/0_2]_s$

Very good quality of material: No defects at 50 N applied load

Microcracks were not observed at 0.5% of applied strain



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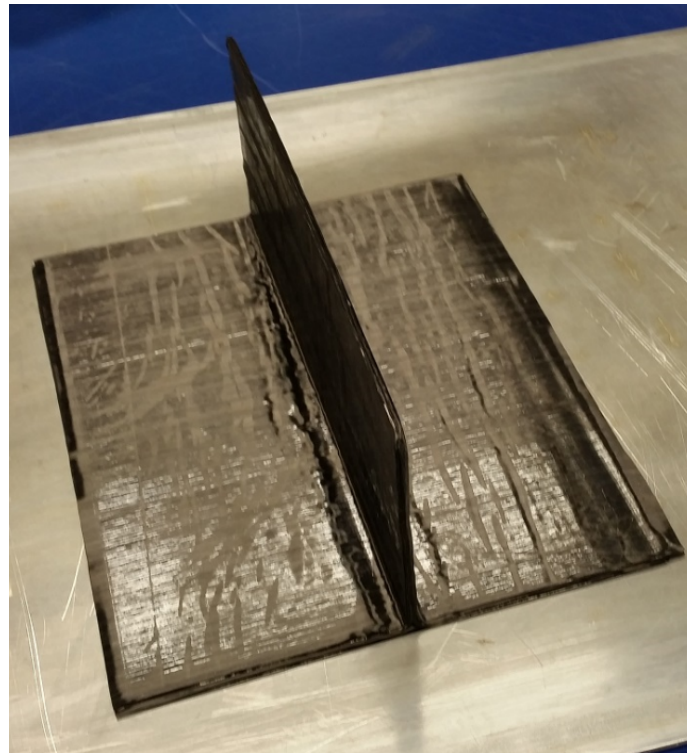
Distortion - SMFF



swerea | SICOMP

oXeon

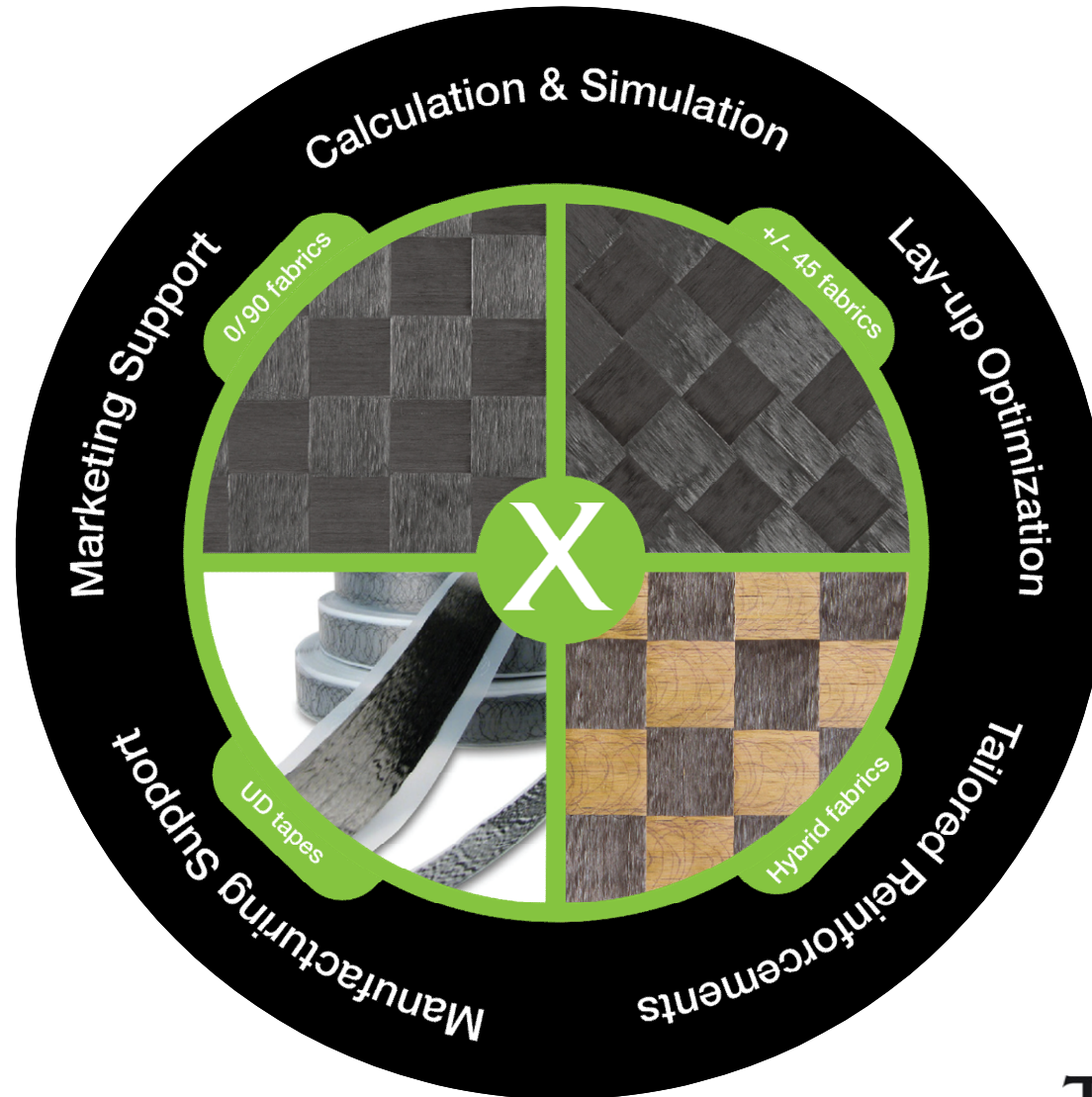
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64gsm
160gsm
240gsm
326gsm



Evaluation of thermal-stress-induced deformations in thin ply composite structures

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Oxeons erbjudande



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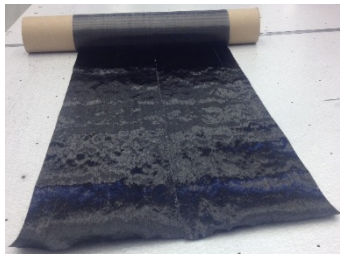
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Vad är TeXtreme®

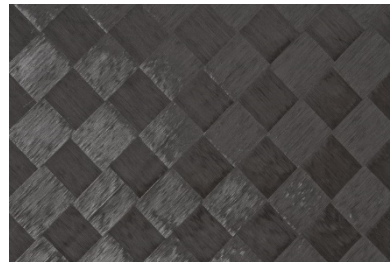
Smal UD



Väv[0/90]

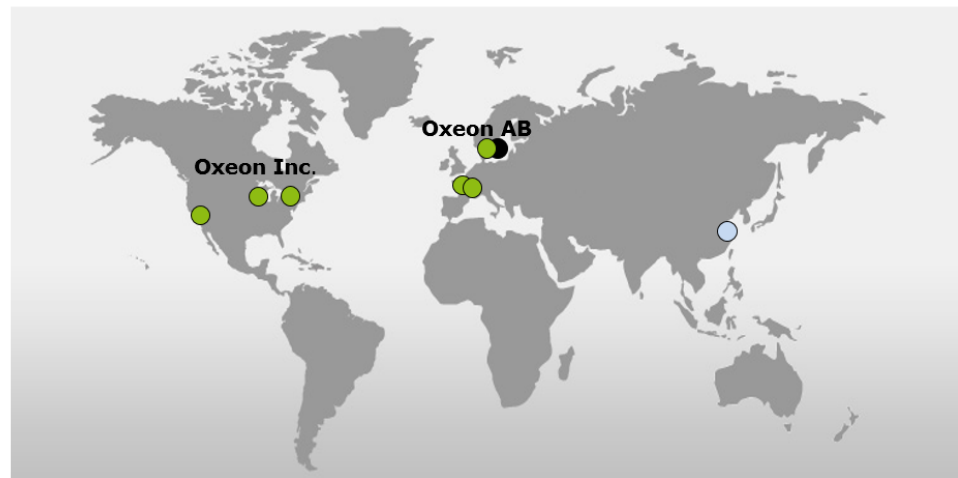


Bred UD



Väv [+/-45]

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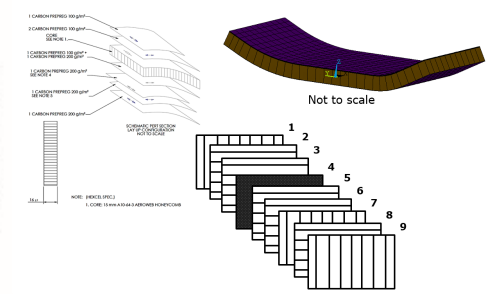
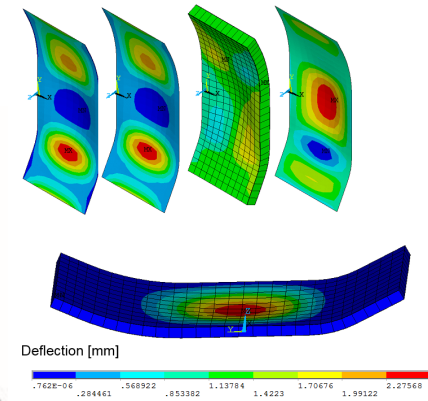
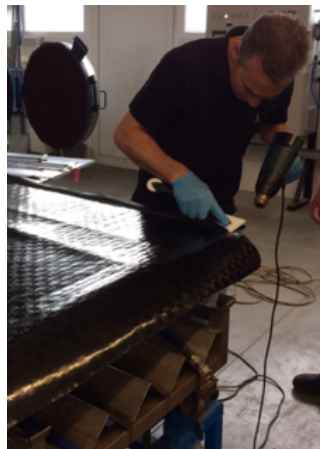
● Sales Office

● Production Facility

○ Technical & Sales support office

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Oxeons utökade erbjudande



- Areal weights
- Fabric width
- Fiber angle
- Fiber distribution
- Fiber type
- Tape width
- Etc.

