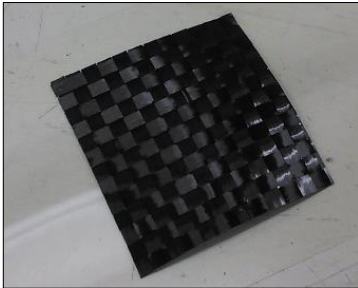
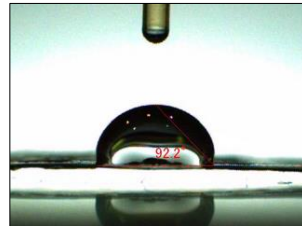


# Surface modification of carbon fiber By MILD-PLASMA™

Making carbon fibers hydrophilic through mild plasma treatment



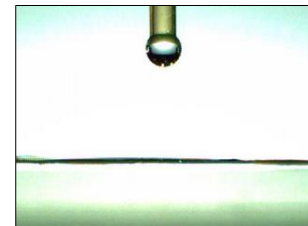
Carbon fiber sheet  
Spread-tow woven fabric  
Tow spread width : 3mm



Before Irradiation

Contact angle

92.2°



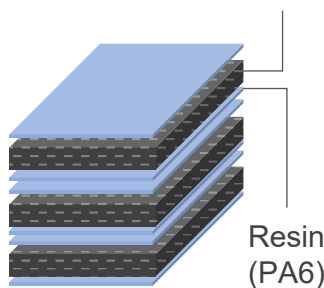
After Plasma irradiation

Immediately absorbed upon water droplet deposition, making contact angle measurement impossible

absorption

## MILD-PLASMA™ treatment Improves Resin Impregnation

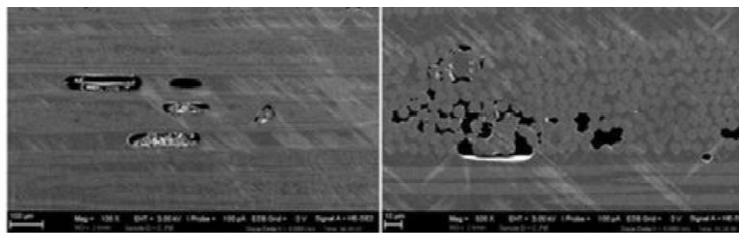
MILD-PLASMA™ treatment  
on carbon fiber



Resin infiltration  
Resin melting and  
impregnation by hot  
pressing



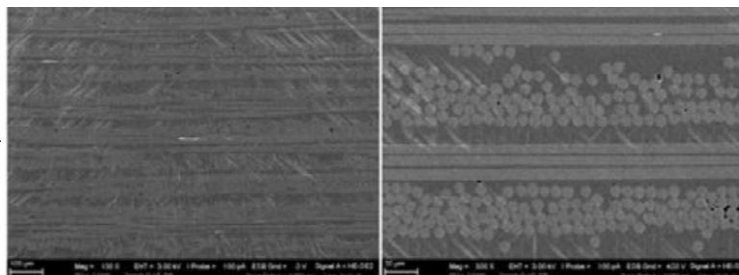
### Resin impregnation without plasma treatment



Multiple  
voids

SEM image of the cross-section  
Carbon fiber diameter 5~8μm

### Resin impregnation after Mild-plasma



Free of  
Voids

35% increase in  
flexural strength



Download Brochure

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