



West

Jour Fix - Kurzvorstellung AGC Inc.

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AGC Chemicals Europe, Ltd.
Claus-Peter Keller



Your Dreams, Our Challenge

Introduction AGC Inc.



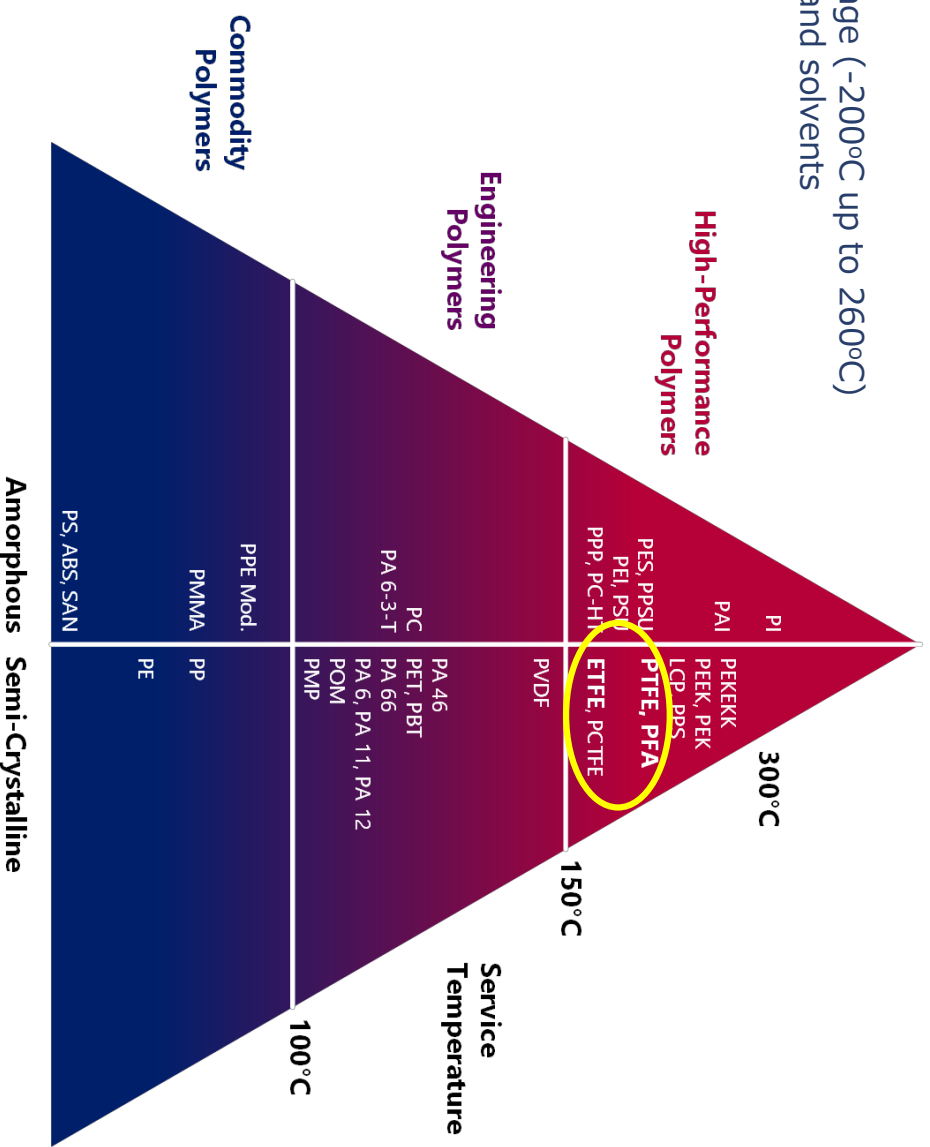
ETFE fluoropolymer architectural film

- Japanese company founded in 1907
 - HQ Tokyo – global presence
 - Founded as Asahi Glass Company – today AGC Inc
 - Today globally leading in float glass
 - 53,200 employees
 - Revenue 11,25 billion €
- AGC in glass, materials and chemicals
 - 51% glass
 - 18% electronics + ceramics
 - 31% chemicals **incl. fluoro**products

Fluoropolymers are high performance polymers

Typical Characteristics

- Heat resistance – over wide temperature range (-200°C up to 260°C)
- Chemical resistance to almost all chemicals and solvents
- Permeation resistance
- High folding endurance (MIT flex life)
- Non-flammability
- Low dielectric constant
- Low friction
- Non stick
- Weather resistance



AGC's expertise for CFRTP and multi-material solutions

ETFE + PFA functional fluoropolymers (20 years experience)



covalent bonding to fibres and other substrates (polymers, metals, etc.)

with reactive groups such as epoxy-, amino-, silane- or hydroxyl

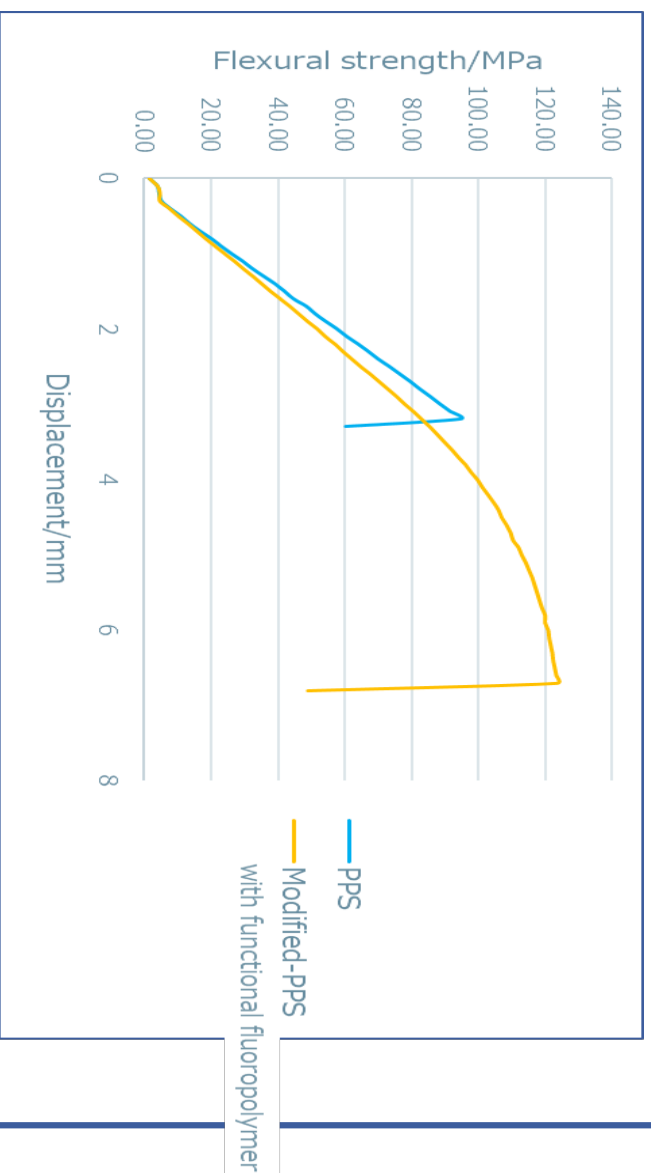
Allows excellent blending as additive into thermoplastics

Development focus on...

- ...fluoropolymer UD tapes
- pure functional fluoropolymer matrix
- Superior chemical resistance
- Fibre-matrix adhesion -> improved mechanical properties



- ...impact modified high temp matrix polymers
- with functional fluoropolymer additive
- improved stress-to-strain → reduced cracking
- For structural components

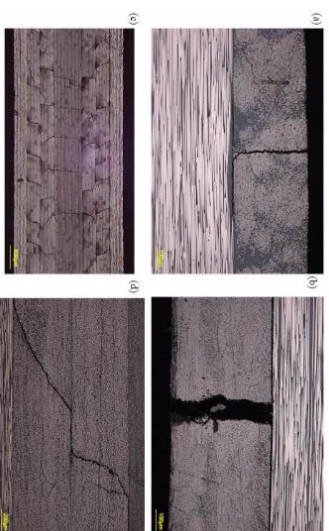


Development focus on...

- ...innovative CFRTP H2 tank technology
- with functional fluoropolymer additives
- reduced cracking -> improved permeability
- Me barrier free -> improved recyclability



Picture for illustration purpose
Reference: Composites World



Pictures for illustration purposes:
Reference: David M. Grogan; Damage and permeability in linerless composite cryogenic tanks, National University of Ireland, September 2015

- ...high temperature fibre sizing
- with funct. fluoropol. dispersion
- PEEK, PPS, etc. matrix



Picture for illustration purpose
Reference: Wikipedia

Intention - Discussion

**Seeking contacts for development of novel CFRTP
and multi material solution in Europe**

**R+D centres in Japan and US
Co-operation with European Institutes**

**AGC is a leading manufacturer of PEM membranes
for H2 electrolysis resp. fuel cells
Member of European Hydrogen association**

Thank you for your attention!

Contact:

Claus-Peter Keller

00491744422258

claus-peter.keller@agcce.com

The logo for AGC, consisting of the letters 'AGC' in a bold, sans-serif font. The letter 'G' is white with a red horizontal bar across its middle, and the letters 'A' and 'C' are dark blue.

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