



 **Fluon[®] PTFE**

**Environmentally Friendly
Products**



FLUON[®] Lubricant Polymers



| Grade | Bulk Density (g/l) | Mean Particle Size - Laser Diffraction (µm) | Surface Area (m ² /g) | FDA Compositional Approval | Applications |
|----------|--------------------|---|----------------------------------|----------------------------|---|
| FL1650 | 440 | 40 | 1.8 | yes | High thermal stability grade recommended for use in thermoplastics |
| FL1679 | 1200 | 750* | - | yes | Used after milling as an additive in printing inks, oils, grease & industrial finishes |
| FL1680 | 400 | 14 | 1.6 | yes | Low porosity lubricant used mainly in printing inks and industrial finishes |
| FL1690 | 440 | 40 | 1.8 | yes | General purpose lubricant, for use in thermoplastics and elastomers |
| L169E | 400 | 17 | - | yes | Premium grade with narrow particle size distribution and high thermal stability for use in thermoplastics |
| FL1700 | 530 | 20 | 7.8 | yes | Friable grade (to sub-micron particle size) used in rubber, elastomers, printing inks, oils, greases and industrial finishes. Suitable for metal decoration (can coating), gravure and flexographic printing inks |
| FL1700HT | 620 | 30 | - | yes | Oils and greases in drinking water applications |
| FL1710 | 440 | 6 | 4.6 | yes | Fine particle size with good dispersion in low/high shear mixers used particularly in inks and industrial finishes |
| FL1730H | 380 | 4 | 5.5 | no | Fine particle size version of FL1710 |

* Measured by sieve analysis

FLUON[®] Aqueous Dispersion Polymers



| Grade | Polymer Type | Mean Particle Size (nm) | Critical Film Thickness (µm) | Surfactant Type | Surfactant Content (% Weight on PTFE) | Solids Content (% PTFE) | Viscosity at 23°C (cP) | Applications |
|---------|-----------------|-------------------------|------------------------------|-----------------|---------------------------------------|-------------------------|------------------------|--|
| AD 132E | Homopolymer | 280 | 20 | Nonionic | 6.0 | 59 | 15 | Coating of metal substrates |
| AD 309E | Trace Copolymer | 250 | 20 | Nonionic* | 5.5 | 60 | 15 | Coating (when superior wetting properties required) and impregnation |
| AD650E | Trace Copolymer | 250 | N/A | Nonionic* | 3.5 | 29 | 5 | De-dusting of absorbent clays |

* Does not contain octylphenol ethoxylates

FLUON[®] Coagulated Dispersion Polymers



| Grade | Polymer Type | SSG | Extrusion* Pressure (MPa) | Mean Particle Size (µm) | Reduction Ratio Range | Bulk Density (g/l) | Applications |
|---------|-----------------|------|---------------------------|-------------------------|-----------------------|--------------------|---|
| CD084E | Trace Copolymer | 2.15 | 26 | 550 | 300-700:1 | 480 | Tubing + high performance hose |
| CD086EL | Trace Copolymer | 2.15 | 28 | 475 | 100-500:1 | 470 | Tubing + high performance hose |
| CD086EH | Trace Copolymer | 2.15 | 35 | 475 | 100-500:1 | 470 | Tubing + high performance hose |
| CD090E | Trace Copolymer | 2.19 | 35 | 600 | 400-4000:1 | 500 | Wire coating, small diameter transparent tubing |
| CD097E | Trace Copolymer | 2.17 | 32 | 580 | 100-4000:1 | 510 | Wire coating Heat shrink tubing |
| CD122E | Homopolymer | 2.16 | 50 | 500 | 15-300:1 | 545 | Electrical tapes and fibres |
| CD123E | Homopolymer | 2.16 | 43 | 530 | 15-300:1 | 545 | Pipeliners, electrical tape |
| CD127E | Homopolymer | 2.16 | 35 | 530 | 25-400:1 | 545 | Pipeliners, electrical tape |
| CD141E | Homopolymer | 2.18 | 30 | 550 | 25-700:1 | 570 | General purpose tubing, anti-drip additive, low density threadseal tape |

*Extrusion pressure is measured in accordance with ISO 12086-2
Reduction ratio 1600:1 for Fluon[®] CD090E & CD097E
Reduction ratio 400:1 for all other Fluon[®] CD grades

FLUON[®] Granular Polymers



| Grade | Polymer Type | Bulk Density (g/l) | Flow (s) | Mean Particle Size (µm) | Preform Pressure (MPa) | Shrinkage (%) | Ultimate Tensile Strength (MPa) | Tensile Elongation to Break (%) | Electrical Breakdown Voltage (kV/mm) | Applications |
|-------|----------------------------|--------------------|----------|-------------------------|------------------------|---------------|---------------------------------|---------------------------------|--------------------------------------|--|
| G110 | Fine milled | 225 | - | 15 | - | - | - | - | - | Principally for blending with fillers |
| G155 | Fine powder | 400 | - | 45 | 16 | 5 | 37 | 400 | 80 | Blending with fillers General moulding |
| G163 | Fine powder | 325 | - | 37 | 16 | 5 | 40 | 380 | 90 | Blending with fillers Billets for skived tape |
| G201 | Pre-sintered for extrusion | 650 | 4.5 | 600 | Extrusion only | 12 | 22 | 330 | 50 | Ram extrusion |
| G204 | Pre-sintered powder | 575 | - | 100 | - | - | - | - | - | Principally as an additive, e.g. to coating systems. Porous mouldings |

Mean particle size measured by Sympatec[®] Laser Diffraction particle size analyser (except G201 which is measured by sieve analysis)

This brochure contains typical property data which should not be used for specification purposes. Please contact the AGC Chemicals Europe sales office for the latest information. (Fluon[®] is a trademark of Asahi Glass Company)

Worldwide Contacts

AGC Chemicals Europe, Ltd.
PO Box 4, York House,
Hillhouse International,
Thornton Cleveleys,
Lancashire FY5 4QD, UK
Tel: +44 (0) 1253 209 560
www.agcce.com



AGC Chemicals RUS (AGCCR)
Russian Federation, 121596
Moscow, Gorbunova Street 2
Grand Setun Plaza, Bld. 204, BC
5th Floor, Block B, Office B 504
Russia
Tel: +7 918 555 34 37
www.agcce.com

AGC Chemicals
ASAHI GLASS CO., LTD.
Shin-Marunouchi Bldg.
1-5-1, Marunouchi
Chiyoda-ku
Tokyo 100-8405
Japan
Tel: +81-3-3218-5875
www.agc.com

AGC Vidros do Brasil Ltda. - Chemical Division
Alameda Ministro Rocha Azevedo, 38, 10° andar
cj. 1004, Cerqueira Cesar
São Paulo, SP
01410-000
Brazil
Tel. +55 11 3373-998
www.agcbrasil.com

AGC Chemicals Americas, Inc.
55 E. Uwchlan Avenue
Suite 201
Exton, PA 19341
USA
Tel: +1 610-423-4300
www.agcchem.com

AGC Chemicals Trading (Shanghai) Co., Ltd
Room 2701-2705, Metro Plaza
555 Lou Shan Guan Road
Chang Ning Ward, Shanghai
China Post Code: 200051
Tel: +86-21-6386-2211
www.agcsh.com

AGC Asia Pacific Pte. Ltd.
460 Alexandra Road
#30-01 PSA Building
Singapore 119963
Tel: +65-6273-5656
www.agc.com

AGC Chemicals (Thailand) Co., Ltd.
24th Floor,
Bangkok Insurance Building
25 South Sathorn Road
Bangkok 10120
Thailand
Tel: +66-2-679-1600
www.acth.co.th

