



SOLVAY

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Polymist® in Elastomer Applications Micronized Powders

**SPECIALTY
POLYMERS**

Application Benefits

- Improved lubricity
- Increased hot tear strength
- Improved mold release
- Better flex life
- Reduced friction and wear



Typical Applications

- High-performance elastomers
 - Fluoroelastomers (e.g., Tecnoflon® from Solvay Specialty Polymers), silicone rubber, fluorosilicones
- Standard elastomers
 - Polyurethane, EPDM, neoprene, nitrile, butadiene-acrylonitrile, styrene-butadiene and polychloroprene rubber
- Typical concentrations
 - 5-30 % by weight vs. the base elastomer (phr)



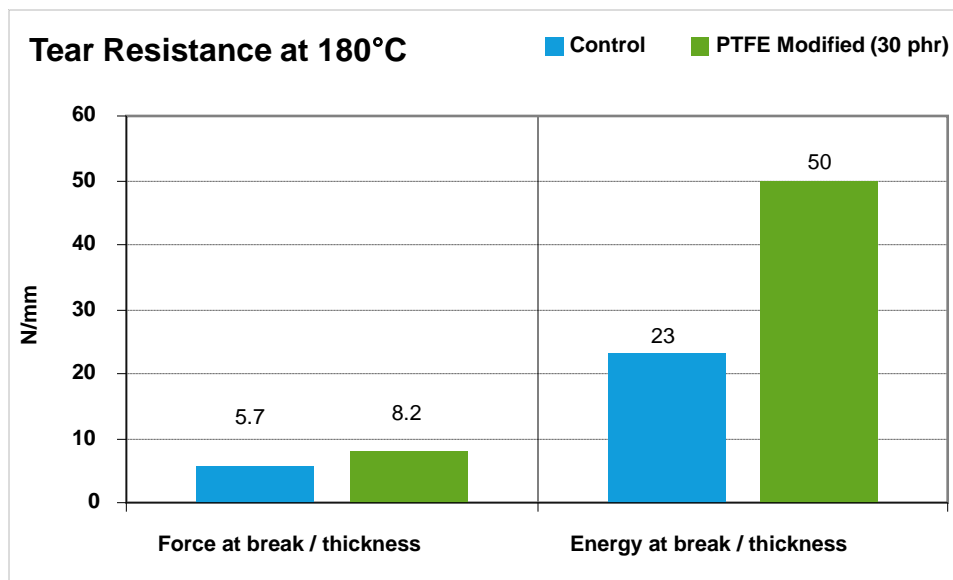
Typical Markets and Applications

- Applications
 - Shaft Seals/Stem Seals
 - Transmission belts
 - Weather strips
 - Gaskets
 - O-Rings
 - Hoses
- Markets
 - Automotive Industry
 - Aerospace Industry
 - Chemical & Processing Industry
 - Oil field/Mining
 - Semiconductor Industry



Tear Resistance improvements

- The addition of PTFE micronized powders improves the tear resistance of the host elastomer
 - Force at break
 - Energy at break

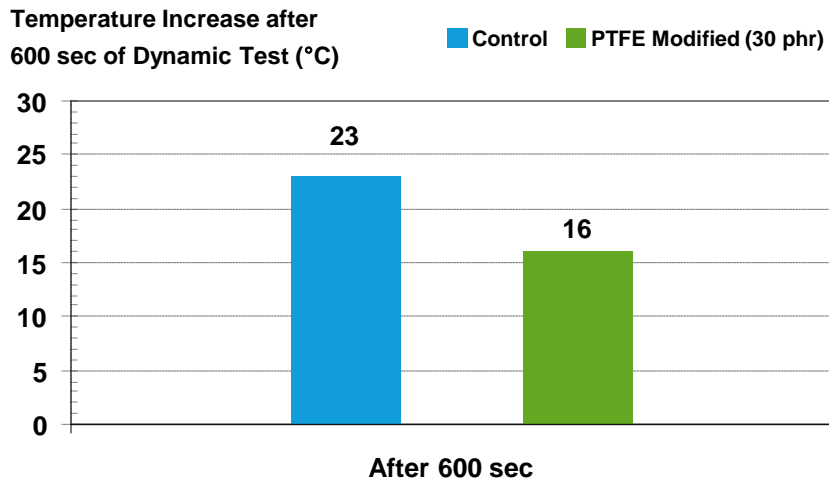


Test carried out with and without PTFE
Specimen: Fluoroelastomeric part based on Tecnoflon® FKM

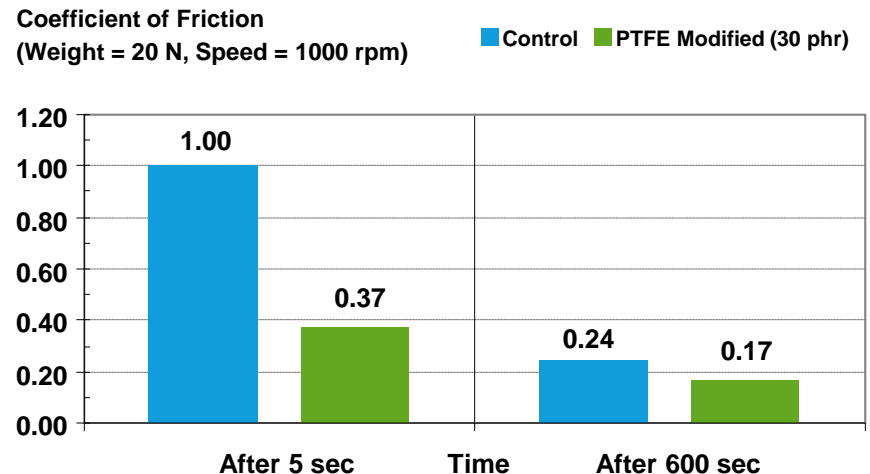
Elastomers

- Reduced Coefficient of Friction and Temperature Increase
 - The addition of PTFE micronized powders reduces:
 - Coefficient of friction
 - Temperature increase during service of the host elastomer

Temperature Increase



Dynamic Coefficient of Friction



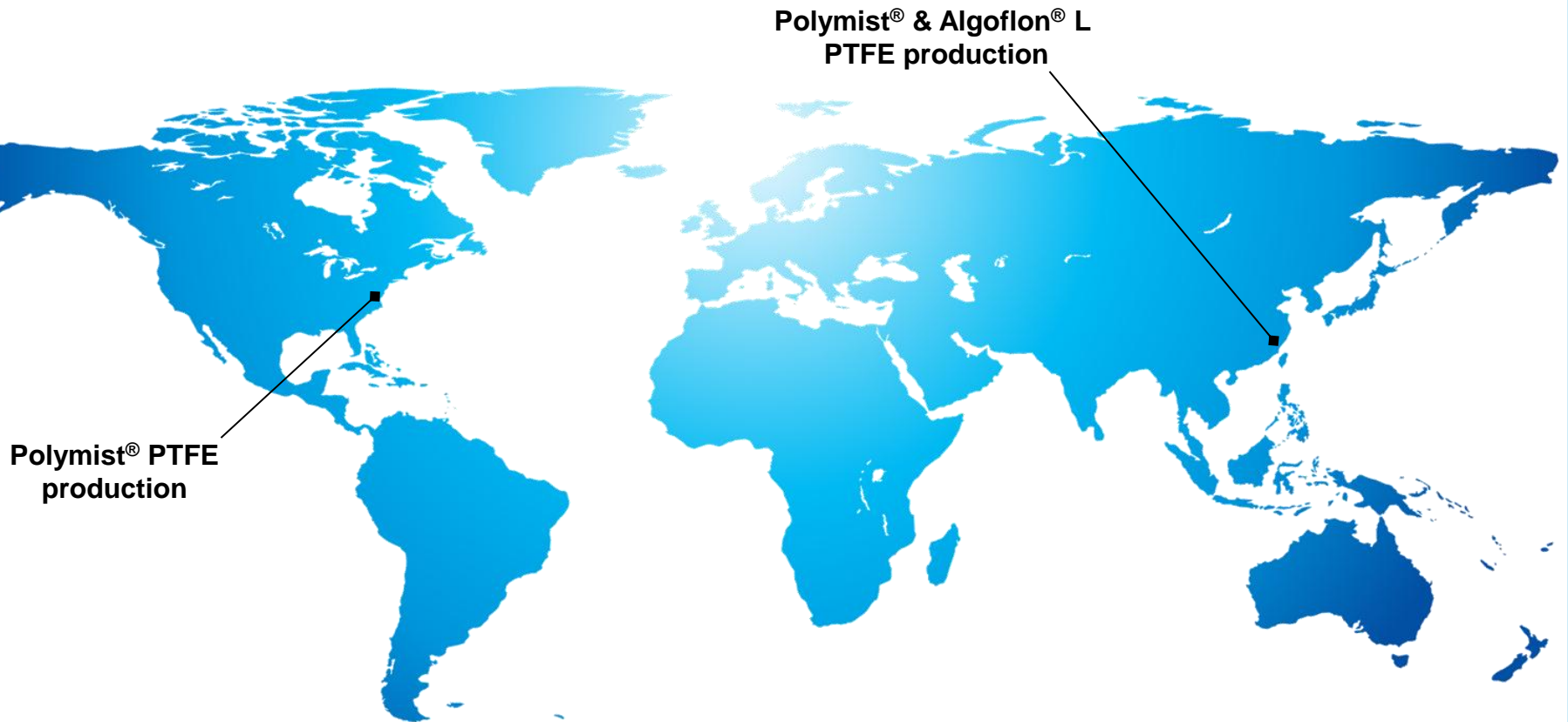
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Typical Properties of Recommended Grades

Trademark	Grade	Application	Surface Area (m ² /g)	Particle Size D50 (μm)	Bulk Density (g/L)	Melt Point (° C)	FDA 21 CFR
Polymist®	F-5A	Standard	3	4.0	400	325 +/- 5	175.300
Polymist®	XPP-538	Standard	3	4.5	400	325 +/- 5	175.300
Polymist®	F-284	Standard	3	9.0	400	330 +/- 5	175.300 177.2600
Algoflon®	L 106	High Efficiency	> 7.5	6.0	325	335 +/- 5	175.300 177.2600
Algoflon®	L 206	High Efficiency	> 7.5	5.0	325	330 +/- 5	175.300

Solvay as PTFE Micronized Powders Supplier

- Fully integrated Supplier with Plant operations in the USA and China



Material Safety Data Sheets (MSDS) are available by emailing us or contacting your sales representative. Always consult the appropriate MSDS before using any of our products.

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