Braycote Vacuum Greases

Gas solubility data for the base fluid

Technical Report

Perfluoropolyether Lubricants
Plastics Compatibility

The following plastics were unchanged after contact with PFPE for 1000 hours at 70°C:

- Acetal copolymer (POM)
- Acrylonitrile- butadiene-styrene copolymer (ABS)
- Phenylene- oxide based resins (PPO)
- Polyamide 66 (NYLON 66)
- Polybutylene terephthalate (PBT)
- Polycarbonate (PC)
- Polyethylene high density (HDPE)
- Polyethylene low density (LDPE)
- Polyethylene terephthalate (PET)
- Polymehtylmethacrylate (PMMA)
- Polypropylene (PP)
- Polystyrene (PS)
- Polystyrene impact- resistant (HIPS)
- Polyvinylchloride (PVC)
- Polyvinyliden sulfide (PVDS)
- Styrene- acrylonitrile copolymer (SAN)

Plastics Compatibility

Compounds	Conditions	Results
PTFE (Sheet)	ASTM D471-79 150°C @ 500 hrs.	Tensile = 13% Elongation = 8% Volume change = 3%
Superconductive PTFE film (DEWAL INDUSTRIES)	ASTM D 471-79 150°C @ 500 hrs.	No leeching into fluid. Little change seen in physical properties of film.
Conductive PTFE Tube (Stratoflex)	ASTM D471-79 150°C @ 500 hrs.	No leeching into fluid. Little change seen in physical properties of the tube.
Conductive PTFE Tube (Flexible Components)	ASTM D471-79 150°C @ 500 hrs.	No leeching into fluid. Little change seen in physical properties of the tube.
Conductive Polyester	ASTM D471-79 150°C @ 100 hrs.	Material became brittle. Incompatible.
PEEK	ASTM D1384-94 (Method used for metals)	No change in Plastic.
PPS	ASTM D1384-94	No change in Plastic.
Polyamides	ASTM D1384-94	No change in Plastic.
Ryton	ASTM D 471-79	Volume change = +0.3% Weight change = +0.2% Hardness change = 1 -2%
PPS	ASTM D 471-79 150°C @ 500 hrs.	Volume change = +0.1% Weight change = +0.2% Hardness change = +0.2%
PFA	ASTM D 471-79 200°C @ 500 hrs.	Tensile change = - 2.9% Weight change = 0.3% Hardness change = - 15%
MFA	ASTM D 471-79 150EC @ 500 hrs.	Tensile change = - 9.9% Weight change = 0.6% Hardness change = - 11%