

Porite OIL KEEPER® POR-6 / POR-7

POR-6 / POR-7 are normal temperature drying type oil repellent agents mainly used for prevention of oil leakage.

【Features】

- ① POR-6/7 can dry out at normal temperature, does not need high temperature baking furnace.
- ② By using special solvents, the paintability, coating uniformity and quick dryness that cause some problems in conventional water based or alcohol based oil repellent agents are enhanced.
- ③ POR-6/7 are stable against most chemical components, so it is also possible to use it for something other than oil.
- ④ POR-6/7 can make oil repellent coating with good heat resistant.
- ⑤ We have prepared pen-type that has good workability.
- ⑥ POR-6/7 does not contain any chemical substance regulated by rules like RoHS, ELV and REACH. And fluorine chemical components are regulated by rules about environmentally hazardous substances like PFOA, but POR-6/7 does not generate any regulated substances at manufacturing process or degradation.

【Usage】

Prevention of oil leakage from the metal or resin parts like the shaft, connected with oilless bearings

【How to use】

- ① Make sure to remove any oil contamination on the target surface, and then dry it.
- ② Paint OIL KEEPER with dipping, spraying, cotton swabbing or brushing, and then dry at normal temperature. And a water and oil repellent coat is formed at the surface.

【Characteristics】

Item	Characteristics (common to POR-6/7)
Oil repellent component	Perfluoro-polymer 2 wt%
Solvent (volatile component)	Perfluoro-solvent 98 wt%
Luminous agent (POR-7 only)	Coumarin Derivative <0.1 wt%
Viscosity	0.4 mm ² /s
Specific gravity	1.4 @20°C
Flash point	None
Solubility in water	Insoluble

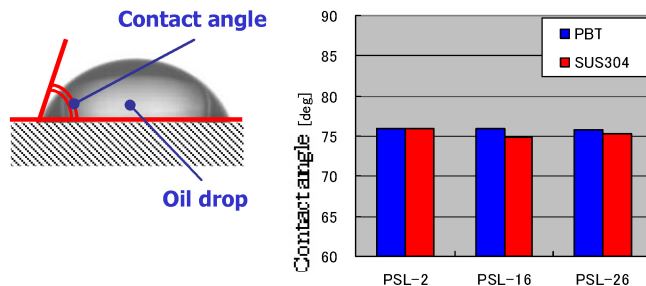
【Remarks】

- ① After using, make sure to seal up and reserve in a cold dark place.
- ② Use “POR solvent” to arrange the thickness of the coating film or the process speed.
- ③ If you need condensed liquid, please ask us.

【Adaptability test for base materials and oils】

Oil repellent agent: POR-6
 Materials of test pieces: PBT(resin), SUS304(stainless steel)
 Test oils: PSL-2, PSL-16, PSL-26
 Method for coating: Spinning coat method, 250rpm*30sec
 Method for evaluation:

Make an oil drop of 1 μℓ of test oil on the coating, then measure its contact angle. Large contact angle means good oil repellent.
 Result: POR-6 has good oil repellency at any base materials and oils.

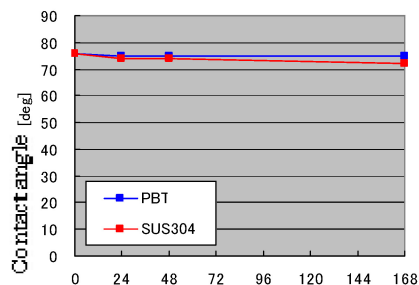


【Heat resistant test】

Oil repellent agent: POR-6
 Materials of test pieces: PBT(resin), SUS304(stainless steel)
 Test oil: PSL-2
 Method for coating: Spinning coat method, 250rpm*30sec
 Method for evaluation:

Make an oil drop of 1 μℓ of test oil on the coating, then leave in the oven at 80°C. Measure its contact angle after 24, 48 and 168 hours.
 Result:

POR-6 did not lost oil repellency by heat at any base materials.



【Heat cycle test】

Oil repellent agent: POR-6
 Materials of test pieces: PBT(resin), SUS304(stainless steel)
 Test oil: PSL-2
 Method for coating: Spinning coat method, 250rpm*30sec
 Method for evaluation:

Make an oil drop of 1 μℓ of test oil on the coating, then leave in the environmental test chamber at heat cycle below for 10 cycles(50 hours). Then measure its contact angle.

- ① Keep 1.5 hours at 70°C, 93%Rh.
- ② Lower temperature in 1 hour.
- ③ Keep 2.5 hours at -25°C.
- ④ Upper temperature in 1 hour.

Result: POR-6 kept oil repellency after the test.

