

Anti-smudge coating OPTOOL DSX / DSX-E

 TECHNICAL
DATASHEET

OPTOOL DSX/DSX-E is an innovative antifouling agent, which DAIKIN has developed based on our long experience in original fluorine chemical technology.

Introduction

OPTOOL DSX/DSX-E is especially effective on glass and surfaces coated with SiO₂.

It adds the following characteristics to the surfaces:

- Water and oil resistant.
- **Anti-adhesion of oils like fingerprints and its easy removability.**
- **Low friction surfaces.**
- Durability.
- Sliding angle reduction, especially effective for oils.
- Non-cohesiveness.
- Ice suppression and easy removability.
- It is simply used and contributes to rapid processing.

General physical properties

Table Example of surface characteristics after OPTOOL DSX is coated.

Items to be measured	Unit	OPTOOL DSX	Existing fluorine type processing agent	Glass plate which has not been processed.
Contact angle of water	°	112	110	<10
Critical surface tension	mN / m	12	14	-
Sliding angle of n-hexadecane	°	3	24	-
Adhesive tape peeling strength	N	0.93	2.35	3.62
Note 1)				
Tendency for fingerprint transfer		Good	Fair	Poor
Ease with which fingerprints can be wiped away		Excellent	Fair	Poor
Icing force Note 2)	kPa	344	768	774
Weather resistance Note 3)	°	110	107	-
Friction resistance Note 4)	°	107	37	-
Coefficient of factor Note 5)		0.13	0.34	0.57
Heat resistance Note 6)	°	79	-	-
Chemical resistance, Acid Note 7)	°	106	-	-
Alkali Note 8)	°	<40	-	-

*The above numeric values are representative and not guaranteed.

Note 1)Peeling strength when 18mm-wide cellophane tape stipulated by JIS Z 1522 is peeled at the time of 50 mm/sec.

Note 2)Shear-peeling strength of ice at -80°C.

Note 3)Contact angle of water after 161 hours of treatment with Eye Super UV Tester SUV-W13 (Manufactured by Iwasaki Electric Co., Ltd.)

Note 4)Contact angle of water after being rubbed 10,000 times at 37kPa with flannel cloth(#300 cotton).

Note 5)Bauden-Leben type(Steel balls)

Note 6)Contact angle of water after having been left for 6 days in the air at 200°C.

Note 7) Contact angle of water after having been immersed in 1 mass% H₂SO₄ solution for 6 days.

Note 8)Contact angle of water after having been immersed in 1 mass% NaOH solution for 1 day.

Handling method/Safety information

- Be sure to read the notes on SDS and labels before use.
- This product is intended for general industry, and therefore its adequacy and safety as a raw material for medical purposes cannot be guaranteed.

Packing specification

- 100g

For more information, visit our website.

DAIKIN INDUSTRIES, LTD.

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