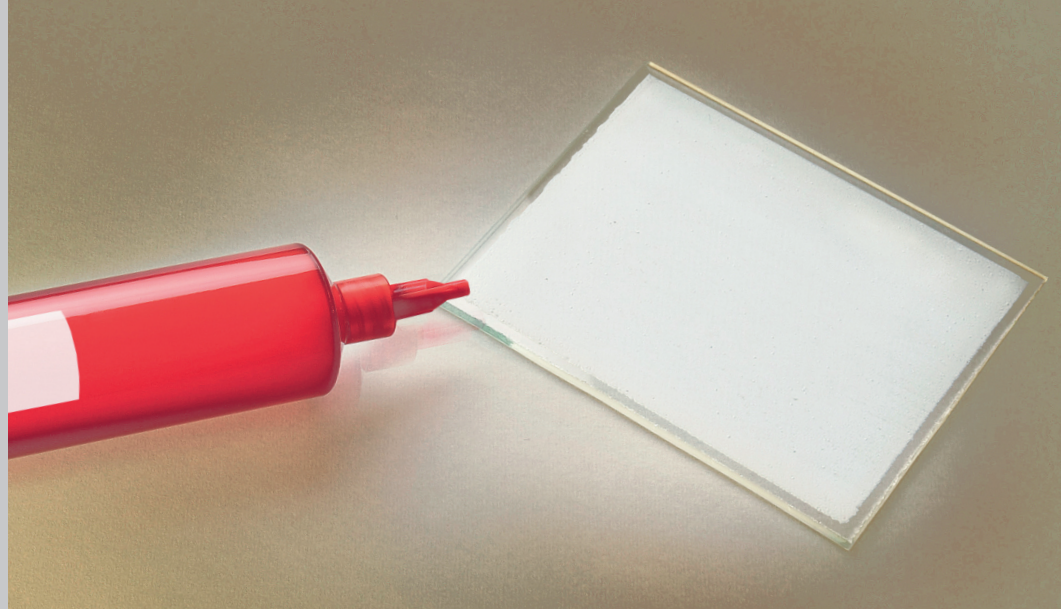


eDry™/X

Dispensable Dryer



HIGHLIGHTS

General Features

- Handling and dispensing in air
- High moisture sorption capacity
- Resistant to air exposure
- Rigid film after curing
- High flexibility
- Thickness range from 10 μm to 1000 μm
- Solvent-free, epoxy base
- Extremely low outgassing
- No loose particles

Applications

- Semi-hermetic packaging
- Microelectronic devices
- Optoelectronic devices
- Quartz crystal oscillators
- Implantable medical devices
- Organic lasers
- Flexible organic devices

Product Description

eDry™/X is a high capacity, solventless, thermally curable, dispensable dryer, designed for use in semiconductor, medical, microelectronic and opto-electronic packaging applications and other sophisticated applications. Due to its viscosity it can be applied by syringe or blading.

eDry/X films work as irreversible moisture getter.

Material Property	Paste	Paste 1h air exposure	Cured film 16h air exposure
Appearance	Light grey	Light grey	Light grey
Viscosity at 5 - 50 s ⁻¹ (cP) (*)	200,000 - 90,000±20%	200,000 - 90,000±20%	NA
Density (g/cm ³)	1.3	1.3	1.3
Typical moisture capacity (wt %)	> 14	> 13	NA
Weight loss up to 200 °C (% wt)	< 1	< 1	< 1
Thermal Stability, max T(°C)	NA	300	300
Max. particle size, X90 (μm)	< 20	< 20	NA
Storage temperature (°C)	- 18	-30 to +170	-30 to +170
Shelf life (months)	6	NA	NA
Storage atmosphere	Dry if bag is opened	Dry	Dry

(*) at 25 °C

Processing

Bring eDry/X to room temperature before use.

Deposition

Apply via blading or dispense by syringe on the desired surface.

Compatible surfaces are:

- Glass
- Stainless Steel and other metals
- Plastics (PET, PEN, engineered films)

Example of syringe dispensing parameters are:

- Needle size 250 μm
- Pressure 3 bar
- Speed 8 mm/s



Thermal curing

- Curing conditions are 170 °C for 30' or 150 °C for 1h
- Curing can take place in air
- No solvent is evolved during curing.

eDry/X is a solid film after curing.

Moisture Sorption

eDry/X nominal sorption capacity is > 16 wt% at 25 °C, 55 %RH.

A negligible loss of capacity is caused by exposing eDry/X to air for 1 h before curing.

Sorption Properties (typical)

Thickness (µm)	Sorption Capacity (mg cm ⁻²)
50	>1
100	>2
200	>4

Cleaning

Typical solvent used for cleaning is acetone.

Ethanol can also be used.

Shipping and Storage

Short term storage: eDry/X exposure at room temperature (20-25 °C) over 72 h is not recommended.

Long term storage: shelf life of eDry/X is 6 months if properly stored (keeping the barrier bag sealed at -18°C).

Handling

Once the syringe is removed from the barrier bag, eDry/X must be deposited within 8 hours when exposed to ambient air.

After being cured, eDry/X films can be exposed to air (up to 16 h) without losing significant sorption capacity.

Ordering information

Code: 5X0825 Description: EDRY/X/SMT10 (Musashi syringe - 10cc)

Code: 5X0824 Description: EDRY/X/SMT3 (Musashi syringe - 3cc)

Code: 5X0822 Description: EDRY/X/SET10 (EFD/Nordson syringe - 10cc)

Code: 5X0823 Description: EDRY/X/SET3 (EFD/Nordson syringe - 3cc)

eDry™/X

Dispensable Dryer

The SAES Group manufacturing companies are ISO9001 certified, the Asian and Italian companies are also ISO14001 certified. Full information about our certifications for each company of the Group are available on our website at: www.saesgroup.com

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