

High barrier coating materials that contribute to recycling

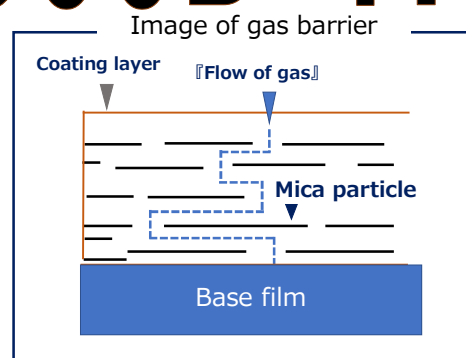
- Synthetic mica -

SOMASIF ME300B-4T

SOMASIF ME300B-4T is a synthetic mica dispersed in water.
This material provides excellent gas-barrier properties
when mixed with water-based resins and coated onto substrates.

Examples water-based resins : PUD, PVOH, Acrylic Resins...

Examples substrates: BOPP, PET, PE, Paper...



—We have developed the material with a higher aspect ratio
using our special and unique dispersion technique—

Physical property value	Natural mica	Purified bentonite	Our product
			ME300B-4T
D50 (μm)	10	3	10
Particle thickness (nm)	100	30	30
Aspect ratio	100	100	330

—Example in PUD—

Composition	OTR (cc/m2 day atm)	WVTR (g/m2 day atm)
	20 degree C, 80%RH	40 degree C, 90%RH
OPP/PUD	40	8.0
OPP/PUD + ME300B-4T-L	1.6	5.1

The combination of PUD and SOMASIF
suppresses both OTR and WVTR.

—Example in PVOH—

Composition	OTR (cc 3um/m2 day atm)
	23 degree C, 80%RH
OPP/PVOH	67
OPP/PVOH + ME300B-4T	5.6

Adding SOMASIF to PVA keeps OTR low
even under high humidity conditions.

—Advantages from an environmental perspective—

- VS PVDC coat : Halogen-free
- VS EVOH co-extrusion : Able to realize mono-materialization

SOMASIF's compliance with food contact regulations

EU	(EU)No10/2011	Listed ※Limited to use in food non-contact layers
USA	FDA	We obtained opinion letter ※Limited to use in food non-contact layers

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