Sheet adhesion improver SOFBAR™ D series

NOF CORPORATION

1 Feature

- Adhesion between green sheets can be improved with a small addition amount.
- Shows good thermal decomposability and suppresses the formation of residual charcoal during firing.
- It is 100% effective and has good handling properties.

2 Typical properties and solubility

Item	Viscosity (40℃) mm²/s	Solubility (10 wt% solution, 25℃)					Registration				
		Water	EtOH	Toluene	MEK※1	DHTA※2	Japan	China	Korea	Taiwan	USA
D-52MB	350	×	○	○	○	○	On List				
D-50TG	850	×	○	○	○	○	On List				

※1 methyl ethyl ketone ※2 Dihydroterpinyl acetate

3 Adhesive strength

Table1. Sheet composition for evaluation

Composition	Material name	Amount (g)
Dielectric	Barium titanate (size:200nm)	100
Dispersant	MALIALIM™ SC-0505K	1.0
Binder	Polyvinyl butyral	7.5
Plasticizer	Dioctyl phthalate	2.9
Total	—	111.4
Additive	SOFBAR™ D series	0 or 0.19 or 0.38※3

※3 0, 2.5 and 5.0 wt% for polyvinyl butyral, respectively

Table2. Sheet physical properties

thickness	3μm	14μm
	Surface roughness Ra(μm)	Tensile strength (N/mm²)
blank	0.0394	16.5
SOFBAR D-52MB※4	0.0392	16.8
SOFBAR D-50TG※4	0.0398	17.1

※4 5.0 wt% for polyvinyl butyral, respectively

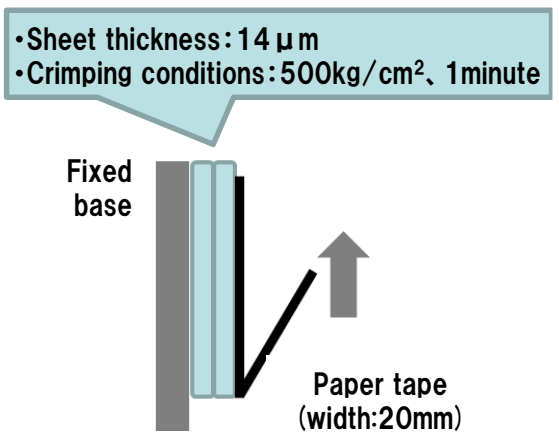

Figure1. Condision of adhesive test

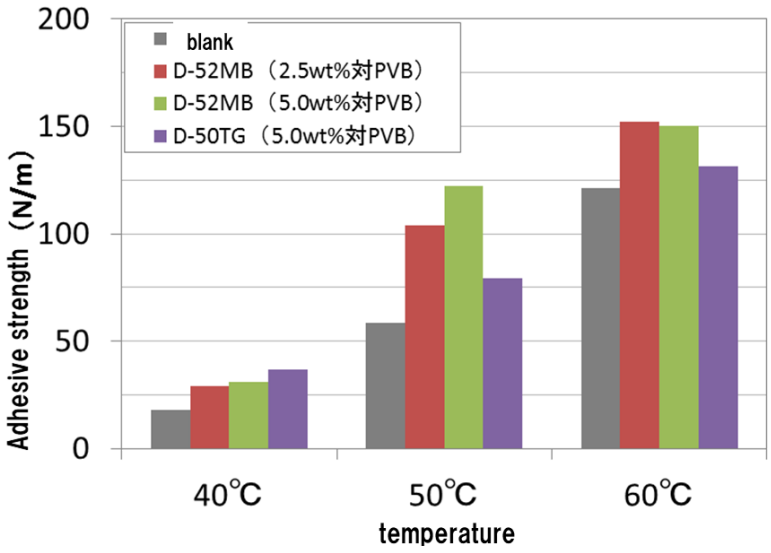

Figure2. Resuls of adhesive test

4 Thermogravimetric analysis

＜Air＞ Flow rate: 75mL/min, Heating rate: 10℃/min

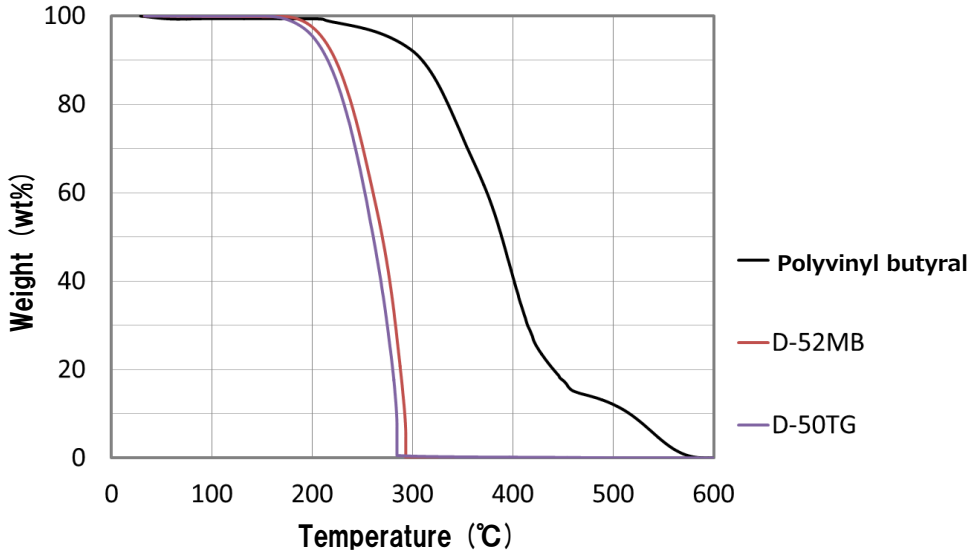

Figure3. Thermal decomposition characteristics under air atmosphere.

＜N_2＞ Flow rate: 75mL/min, Heating rate: 10℃/min

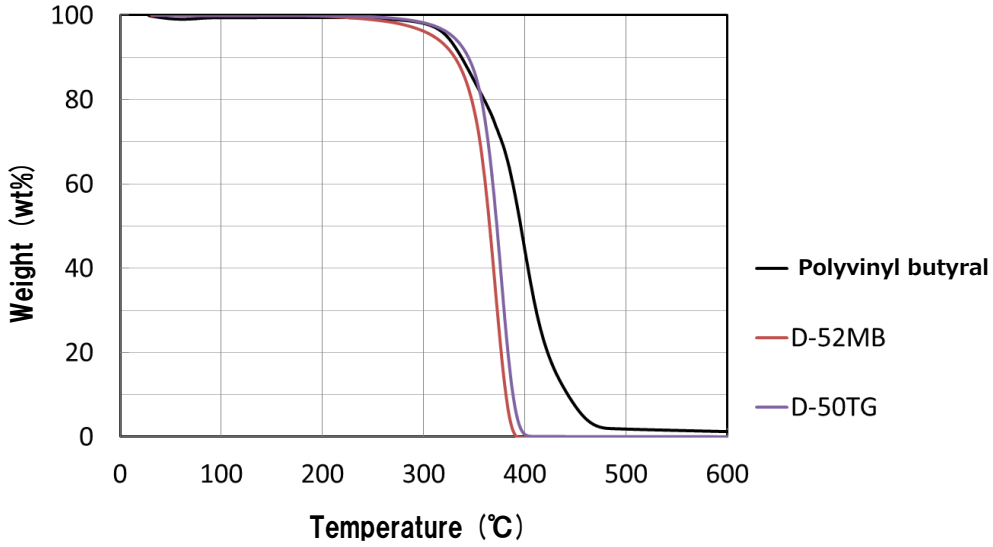

Figure4. Thermal decomposition characteristics under N_2 atmosphere.

5 Other information

This catalogue is made by NOF CORPORATION based on our best knowledge and all of listed data are reference only. (not guaranteed) We recommend to refer our SDS before using our products and special attention should be paid in handing because all chemicals have unknown hazard.

Please contact us when you have any other question.

*MALIALIM is a trademark of NOF CORPORATION.

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