Technical Report Of Physical Properties

October i	1st	2008
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Mitsubishi Plastics, Inc. Nagahama Plant Electronics & High Performance Materials Production Dep.

Title	DIALAMY FR-02A	Mass Production Test Sample Data	
Specimen	DIALAMY FR-02A	Mass Production Test Samples	

Dear let me congratulate you on your company as in good health more and more. Thank you very much for usually receiving special kindness. By the way, it will report on the physical properties of DIALAMY FR-02A's mass production test samples to the following and receive them, please.

Physical properties (typical data)

Group	Test Items	Direction	Test Methods	Description Data		Unit
	340 μ m (natural gra	Existing Products (FR-02)	New Products (FR-02A)			
Mechanical Properties	Tensile Strength	MD		144	107	MPa
		TD	JIS K 7127	148	121	MPa
	Elongation	MD		117	150	%
		TD		97	122	%
Electrical Properties	Dielectric Breakdown Voltage		JIS C 2110	20	19	ΚV
Thermal Properties	Thermal Shrinkage	MD	JIS K 7133	-1.2	-1.1	%
		TD		-0.2	0.0	%
	340 μ m (black)	Existing Products (FR-02)	New Products (FR-02A)			
Mechanical Properties	Tensile Strength	MD		116	97	MPa
		TD	JIS K 7127	181	116	MPa
	Elongation	MD		131	110	%
		TD		73	82	%
Electrical Properties	Dielectric Breakdown Voltage		JIS C 2110	27	27	ΚV
Thermal Properties	Thermal Shrinkage	MD	JIS K 7133	-1.1	-1.3	%
		TD		0.1	0.4	%
	500 μ m (natural	Existing Products (FR-02)	New Products (FR-02A)			
Mechanical Properties	Tensile Strength	MD		118	98	MPa
		TD	JIS K 7127	132	132	MPa
	Elongation	MD		123	114	%
		TD		86	72	%
Electrical Properties	Dielectric Breakdown Voltage		JIS C 2110	24	27	ΚV
Thermal Properties	Thermal Shrinkage	MD	JIS K 7133	-1.1	-1.0	%
		TD	013 K 7133	-0.2	0.0	%
	500 μ m (black)			Existing Products (FR-02)	New Products (FR-02A)	
Mechanical Properties	Tensile Strength	MD		114	96	MPa
		TD	IIC V 7107	152	110	MPa
	Elongation	MD	JIS K 7127	91	109	%
		TD		93	84	%
Electrical Properties	Dielectric Breakdown Voltage		JIS C 2110	25	32	ΚV
Thermal Properties	Thermal Shrinkage	MD	- JIS K 7133	-0.5	-1.2	%
		TD		0.3	0.3	%

(Note) The values mentioned above are reference ones due to measured data in test samples but not guaranteed ones.

Please confirm the performance of this product enough when you adopt it.