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4. PHYSICAL PROPERTIES

The mechanical properties of the cured products of the KINGMIDE X-220B and the same epoxy resin as employed above were measured as follow ; Cured at 23°C for 7 days

Epoxy resin / KINGMIDE X-220B		100 / 40	100 / 50	100 / 60
Tensile Strength	(kgf/mm ²)	5.2	5.6	6.4
Flexural Strength	(kgf/mm ²)	5.7	7.9	8.6
Flexural Modulus	(kgf/mm ²)	2.5×10 ²	2.5×10 ²	2.5×10 ²
Compressive Strength	(kgf/mm ²)	6.8	8.5	8.5
Izod Impact Strength	(kgf/cm-cm)	1.5	1.8	2.2
Rockwell Hardness	(M-scale)	69	96	98
Heat Distortion Temp.	(°C)	37	43	46

5. LAP SHEAR STRENGTH

Epoxy resin : Employed Bisphenol-A type epoxy resin whose EEW is 190.

Curing Temperature : 23°C for 4 days

Epoxy resin / KINGMIDE X-220B	100 / 40	100 / 50	100 / 60
Lap shear strength (kgf/cm ²)	151	118	101

6. CHEMICAL RESISTANCE

Percentage increase in weight of the cured products of KINGMIDE X-220B and the same epoxy resin as employed above were measured as follow after being cured at 23°C for 7 days, and immersing into respective chemical substances.

Unit : %

Epoxy resin / X-220B	100 / 40			100 / 50			100 / 60		
	1	7	30	1	7	30	1	7	30
Immersing time (days)									
Tap water (23°C)	0.2	0.6	1.3	0.2	0.5	1.2	0.2	0.6	1.2
5% Salt solution	0.2	0.6	1.1	0.2	0.5	1.1	0.2	0.5	1.1
5% Caustic Soda Solution	0.3	0.6	1.1	0.3	0.6	1.1	0.3	0.6	1.3
5% Ammonia Solution	0.3	0.6	1.2	0.3	0.6	1.3	0.4	0.8	1.7
10% Sulfuric Acid Solution	0.2	0.5	0.9	0.2	0.4	0.9	0.2	0.5	1.0
10% Hydrochloric Acid solution	0.3	0.6	1.2	0.2	0.6	1.2	0.2	0.6	1.4
Kerosene	0.5	1.1	1.3	0.3	0.8	1.4	0.1	0.6	1.4
Isopropanol	12.8	BROKEN		6.2	17.7	BROKEN	1.4	6.1	13.7
Methyl-isobutyl-ketone	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2