

# Liquid Crystal MAGNA

## Materials

TYPE	TOUGH						RIGID				FLEXIBLE			HIGH TEMP
Grade Comparison	ST45	ST100	ST100X	F12/17 (R&D)	Tough70 New	Tough70 New	RG50	RG35	High Tensile	Magna Hard	FL301	EL151	Flexible New	High Temp (R&D)
MANUFACTURER	BASF			PHOTOCENTRIC			BASF		PHOTOCENTRIC		BASF		PHOTOCENTRIC	PHOTOCENTRIC
Tensile Strength (MPa)	57	35	53	45	30	30	70	49	80	63	3	10	8	
Young's Modulus (MPa)	2150	1178	1600	1800	1500		3000	1500	2500	1500			20	
Elongation @ Break (%)	18	35	28	20	70	170	3	3	4	4.3	300	130	170	
Hardness (Shore D)	75				60	55		80	90	80			60 A	
Impact Strength notched Izod kj/m2				12	60	60		6	2	5.2				
Tear Strength kN/m					120	80							20	
HDT @ 0.45 MPa (°C)	58	49	67	65	65			66	65					310
HDT @ 1.82 MPa (°C)														290
Viscosity @ 30 °C (mPas)	240	1117			4800	4800		600	450	~800			900	
Viscosity @ 50 °C (mPas)														