



Onda Corporation  
 592 Weddell Drive, Suite 7, Sunnyvale, CA 94089  
 PH: (408) 745 - 0383 FAX: (408) 745 - 0956

# Acoustic Properties of

# Plastics

Ref	Material	Vendor	V <sub>L</sub> mm/: s	V <sub>S</sub> mm/: s	D g/cm <sup>3</sup>	Z <sub>L</sub> MRayl	F	Loss dB/cm
AS	ABS, Beige	Port	2.23		1.03	2.31		11.1 @ 5
AS	ABS, Black, Injection molded (Grade T, Color #4500, "Cycolac")	Borg	2.25		1.05	2.36		10.9 @ 5
AS	ABS, Grey, Injection molded (Grade T, Color #GSM 32627)	Borg	2.17		1.07	2.32		11.3 @ 5
AS	Acrylic, Clear, Plexiglas G Safety Glazing	Rohm	2.75		1.19	3.26	0.40	6.4 @ 5
AS	Acrylic, Plexiglas MI-7	Rohm	2.61		1.18	3.08	0.40	12.4 @ 5
M	Bakelite	UC	1.59		1.40	3.63		
AS	Cellulose Butyrate	0	2.14		1.19	2.56		21.9 @ 5
AS	Delrin, Black	D	2.43		1.42	3.45		30.3 @ 5
JA	Ethyl vinyl acetate, VE-630 (18% Acetate)	USI	1.80		0.94	1.69		
JA	Ethyl vinyl acetate, VE-634 (28% Acetate)	USI	1.68		0.95	1.60		
JA	Kydex, PVC Acrylic Alloy Sheet	Rohm	2.218		1.35	2.99		
AS	Lexan, Polycarbonate	GEP	2.30		1.20	2.75		23.2 @ 5
AS	Lustran, SAN	Mons	2.51		1.06	2.68		5.1 @ 5
	Mylar	D	2.54		1.18	3.00		
AS	Kodar PETG, 6763, Copolyester	Kodak	2.34		1.27	2.97		20.0 @ 5
	Melopas	AMPL	2.90		1.7	4.93		7.2 @ 2.5
	Nylon, 6/6		2.6	1.1	1.12	2.9	0.39	2.9 @ 5
AS	Nylon, Black, 6/6	Port	2.77		1.14	3.15		16.0 @ 5
PKY	Parylene C	MM	2.15		1.40	3.0		0.1 @ 1
PKY	Parylene C	Vikng	2.2		1.18	2.6		
PKY	Parylene D	SEA	2.1		1.36	2.85		
AS	Polycarbonate, Black, Injection molded (Grade 141R, Color No.701,"Lexan")	GEP	2.27		1.22	2.77		22.1 @ 5
AS	Polycarbonate, Blue, Injection molded (Grade M-40, Color No. 8087, "Merlon")	Mobay	2.26		1.20	2.72		23.5 @ 5
AS	Polycarbonate, Clear, Sheet Material	Port	2.27		1.18	2.69		24.9 @ 5
CRC	Polyethylene		1.95	0.54	0.90	1.76		
	Polyethylene, high density, LB-861	USI	2.43		0.96	2.33		
	Polyethylene, low density, NA-117	USI	1.95	0.54	0.92	1.79	0.46	2.4 @ 5
AH	Polyethylene DFDA 1137 NT7	UC	1.9		0.9	1.7		
	Polyethylene oxide, WSR 301	UC	2.25		1.21	2.72		



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	Polypropylene, Profax 6432, Hercules	USI	2.74		0.88	2.40		5.1 @ 5
AS	Polypropylene, White, Sheet Material	Port	2.66		0.89	2.36		18.2 @ 5
	Polystyrene, "Fostarene 50"	Amer	2.45		1.04	2.55		
AS	Polystyrene, "Lustrex", Injection molded (Resin #HF55-2020-347)	Mons	2.32		1.04	2.42		3.6 @ 5
	Polystyrene, Styron 666	E	2.40	1.15	1.05	2.52	0.35	1.8 @ 5
	Polyvinyl butyral, Butacite, (used to laminate safety glass together)	D	2.35		1.11	2.60	0.37	
	PSO, Polysulfone	UC	2.24		1.24	2.78		4.25 @ 2
AS	PVC, Grey, Rod Stock (normal impact grade)	Port	2.38		1.38	3.27		11.2 @ 5
AS	Styrene Butadiene, KR 05 NW	Phil	1.92		1.02	1.95		24.3 @ 5
AS	TPX-DX845, Dimethyl pentene polymer	WP	2.22		0.83	1.84		3.8 @ 1.3, 4.4 @ 4
AS	Valox, Black, (glass filled polybutalene teraphlate "PTB")	GE	2.53		1.52	3.83		15.7 @ 5
AS	Vinyl, Rigid		2.23		1.33	2.96		12.8 @ 5