

Table of Ultrasonic Properties

Material	Velocity:		Velocity:		Velocity:		Acoustic Impedance
	Longitudinal		Shear		Surface		
	cm/msec	in/msec	cm/msec	in/msec	cm/msec	in/msec	Gm/cm ² -sec (x 10 ⁵)
Air (20°C)	.0343	.0135					
Alcohol, Ethyl	.118	.0465	.789				.930
Alcohol, Isopropyl	.117	.0461	.786				.919
AL 1100-0 (2SO)	.635	.250	.310	.1220			17.2
Bakelite	.259	.102	1.40				3.63
Brass	.428	.168	.203	.0799			36.7
Copper	.466	.183	.226	.0890	.193	.0760	41.6
Glass, Crown (reg.)	.566	.223	.342	.1346			14.2
Glass, Quartz	.557	.219	.352	.1386			14.5
Glass, plate	.571	.225	.343	.135			14.5
Glycerine	.192	.0757	1.260	2.42			
Gold	.324	.128	.120	.0472			62.6
Ice	.399	.157	.198	.078			
Iron, Cast	.480	.189	.240	.0945			37.4
Lead	.216	.085	.070	.0276	.0630	.0248	24.6
Lucite	.268	.106	.126	.0496			3.16
Magnesium	.631	.248	1.74				11.0
Micarta (Linen Base)	.300	.118					
Molybdenum	.629	.248	.335	.132	.311	.122	64.2
Monel	.602	.237	.272	.107	.196	.0772	53.2
Nickel	.562	.222	.296	.117	.264	.104	50.0
Nitrogen (20°C)	.0350	.0130	1.16 x 10 ⁻³				.000406
Nylon	.262	.103	2.9				
Oxygen (20°C)	.0328	.0129	1.32 x 10 ⁻³				.000433
Plutonium	.179	.0705					28.2
Potassium (100°C)	.186	.0735					1.5
Quartz, Natural	.575	.226					15.2
Sapphire	.980	.386					
Silver	.360	.142	.159	.0626			37.8
Sodium (100°C)	.253	.0996					2.3
Steel, 302 Cres	.566	.223	.312	.123	.312	.123	45.4
Steel, 347 Cres	.574	.226	.309	.122			45.4
Steel, 410 Cres	.739	.291	.299	.118	.216	.0850	56.7
Steel	1020	.589	.232	.324	.128	7.71	45.4
Steel	1095	.590	.232	.319	.126	7.80	46.0
Tantalum	.410	.161	.290	.114	16.6	54.8	
Tin	.332	.131	.167	.0657	7.29	24.2	
Titanium	.607	.239	.311	.122	4.50	27.3	

Tungsten	.518	.204	.287	.113	.265	.104	99.7
Uranium	.338	.133					64.0
Uranium Dioxide	.518	.205					56.7
Water (20°C)	.1483	.0584					1.483
Zinc	.417	.164	.24	.0949			29.6
Zircaloy	2	.472	.186	.236			44.2
Zirconium	.465	.183	.225	.0886			30.1