

**Table SI. Strength and fracture toughness ( $K_{IC}$ ) of glass-ceramics reported in literature (symbols correspond to those in Figures 2 and 3).**

Symbol	Glass-Ceramic Family	Flexural Strength, MPa	$K_{IC}$ , MPa m <sup>0.5</sup> (Method)	Ref.	Symbol	Glass-Ceramic Family	Flexural Strength, MPa	$K_{IC}$ , MPa m <sup>0.5</sup> (Method)	Ref.
■	Lithium disilicate	400 (3-pt. bending)	3.3 (SENB)	11	▶	K-fluorrichterite	227 (ball on ring)	2.7 (indentation)	36
■	Leucite	112 (3-pt. bending)	1.3 (SENB)	11	⬛	Canasite	239 (ball on ring)	1.95 (indentation)	37
●	ZrO <sub>2</sub> -toughened lithium disilicate	444 (3-pt. bending)	2.3 (SEVNB)	14	★	Canasite	250 (ball on ring)	4.2 (indentation)	13
▲	Lithium disilicate	362 (3-pt. bending)	4.0 (SENB)	15	⬠	Canasite	300 (4-pt. bending)	5.0 (CNSB)	7
▼	ZrO <sub>2</sub> -toughened lithium disilicate	340 (3-pt. bending)	3.4 (SENB)	16	⬠	Enstatite	200 (4-pt. bending)	4.6 (CNSB)	7
◆	Lithium disilicate	260 (4-pt. bending)	3.5 (indentation)	17	⬠	F-K-richterite	200 (4-pt. bending)	3.2 (CNSB)	7
◀	Lithium disilicate	350 (3-pt. bending)	3.3 (SEVNB)	18	⦿	Miserite, xonotlite	315 (3-pt. bending)	3.7 (SENB)	38
▶	Lithium disilicate	290 (3-pt. bending)	3.3 (SENB)	19	+	Miserite	159 (4-pt. bending)	3.6 (CNSB)	39
⬠	Lithium disilicate	190 (3-pt. bending)	3.6 (SENB)	20	✕	1N2C3S	210 (4-pt. bending)	1.0 (indentation)	40
★	Mica	86 (4-pt. bending)	2.8 (indentation)	21	✳	Leucite	134 (ball on ring)	2.4 (indentation)	41
⬠	Mica	140 (indentation)	2.0 (indentation)	12	⦿	Nepheline, armalcolite	184 (3-pt. bending)	1.4 (indentation)	42
+	Mica	350 (3-pt. bending)	2.3 (SEVNB)	27	■	Nepheline, combeite	120 (3-pt. bending)	1.3 (indentation)	43
✕	ZrO <sub>2</sub> -toughened mica	324 (3-pt. bending)	4.2 (indentation)	24	■	Celsian	126 (4-pt. bending)	2.5 (indentation)	44
✳	Mica	176 (3-pt. bending)	2.0 (SEVNB)	25	●	Anorthite	236 (3-pt. bending)	2.5 (indentation)	45
⦿	Mica	159 (3-pt. bending)	1.5 (SENB)	26	●	Diopside	226 (3-pt. bending)	2.3 (indentation)	45
■	ZrO <sub>2</sub> -toughened mica	500 (3-pt. bending)	3.2 (SENB)	27	▲	Indialite	165 (4-pt. bending)	4.3 (CNSB)	47
■	Mica	132 (3-pt. bending)	1.4 (SENB)	28	▲	Feldspar	132 (4-pt. bending)	2.7 (CNSB)	47
●	Apatite-wollastonite	213 (3-pt. bending)	2.6 (double torsion)	30	▲	Celsian, mullite	105 (4-pt. bending)	1.7 (CNSB)	47
▲	Akermanite, wollastonite	233 (4-pt. bending)	3.0 (SENB)	32	▼	Feldspar	119 (3-pt. bending)	1.9 (indentation)	48
▼	β-quartz, zirconia	475 (4-pt. bending)	2.0 (indentation)	33	◆	ZrO <sub>2</sub>	226 (ball on ring)	4.1 (indentation)	49
◆	β-quartz, β-spodumene, willemite	135 (4-pt. bending)	2.1 (indentation)	34	◀	β-spodumene	100 (4-pt. bending)	0.9 (CNSB)	50
◀	K-fluorrichterite, enstatite	243 (ball on ring)	2.7 (indentation)	35	◀	β-spodumene	150 (4-pt. bending)	1.1 (CNSB)	50

Note: SENB, single-edge notched beam; CNSB, chevron-notched short beam; SEVNB, single-edge v-notched beam; 1N2C3S (wt%: 48.5 SiO<sub>2</sub>, 23.8 Na<sub>2</sub>O, 23.8 CaO).