

Commercial scintillators

Material	Density [g/cm ³]	Effective Z	Index of refraction (at λ_{\max})	Crystal system	Structure type	Melting point [°C]	Emission max. [nm]	Light output [phot./MeV]	Decay time [ns]	Hygroscopic?
NaI:Tl	3.67	51	1.85	Cubic	Rocksalt	651	415	62000	230	+
CsI:Tl	4.51	52	1.79	Cubic	Rocksalt	621	550	66000	600, 3400	+
CsI:Na	4.51	52	1.84	Cubic	Rocksalt	621	420	40000	630	+
CsI	4.51	52	1.95	Cubic	Rocksalt	621	315	2000	16	+
CaF ₂ :Eu	3.18		1.44	Cubic	Fluorite	1360	435	24000	940	+
CsF	4.64		1.48	Cubic	Rocksalt	682	390	2000	3 – 5	+
BaF ₂	4.88		1.54, 1.50	Cubic	Franckdicksonite	1355	220, 315	11000	0.8, 630	+
LuAlO ₃ :Ce	8.34	65	1.94	Cubic	Perovskite	1900	365	12000	18	-
YAlO ₃ :Ce	5.55	36	1.95	Orthorhombic	Perovskite	1875	350	17000	27	-
Gd ₂ SiO ₅ :Ce	6.71	59	1.85	Monoclinic			440	8000	60	-
Lu ₂ SiO ₅ :Ce	7.40	66	1.82	Monoclinic			420	30000	40	-
Bi ₄ Ge ₃ O ₁₂	7.13	75	2.15	Cubic	Eulitine	1050	480	9000	300	-
CdWO ₄	7.90		2.3	Monoclinic	Wolframite	1320	470, 540	28000	10, 5000	-
ZnWO ₄	7.62		2.32	Monoclinic	Wolframite	1220	490	9500	20000	-
Lu ₃ Al ₅ O ₁₂ :Ce	6.90	62	1.85	Cubic	Garnet	2010	520	5600	58	-
Y ₃ Al ₅ O ₁₂ :Ce	4.57		1.82	Cubic	Garnet	1930	550	14000	70	-
Lu ₂ Si ₂ O ₇ :Ce	6.20	64		Monoclinic		> 2000	380	30000	30	-
LuPO ₄ :Ce	6.53			Tetragonal	Xenotime		360	17000	25	-
LuBO ₃ :Ce	7.40			Trigonal	Vaterite		410	10000	39	-
LuF ₃ :Ce	8.3	66		Orthorhombic		1180	310	8000	23	+
LaCl ₃ :Ce	3.86			Hexagonal			330	49000	26	+
LaBr ₃ :Ce	5.29			Hexagonal			358	61000	35	+
Gd ₂ O ₂ S:Pr,Ce,F	7.34			Trigonal			510	40000	1000	-
(Y,Gd) ₂ O ₃ :Eu	5.90		1.90	Cubic	Bixbyite		610	19000	~ 10 ⁶	-