

# Scintillator Selection

	Gd Loading	d (g/cm <sup>3</sup> )	UV Abs. <sup>430</sup> before/after	Purif. Method	n <sup>20</sup>	Light Yield	H atoms <sup>‡</sup> per c.c	Flash Point
PC	Yes	0.889	0.008/0.002	Vacuum Distil.	1.504	1	5.35×10 <sup>22</sup>	48 C
PCH	Yes	0.95	0.072/0.001	Column	1.526	0.46	5.71×10 <sup>22</sup>	99 C
DIN	Yes	0.96	0.040/0.023	Column		0.87	5.45×10 <sup>22</sup>	>140 C
PXE	Yes, but not stable	0.985	0.044/0.022	Column		0.87	5.08×10 <sup>22</sup>	167 C
LAB	Yes	0.86	0.001/0.000	Column	1.482	0.98	6.31×10 <sup>22</sup>	130 C
Mineral Oil	No	0.85	0.002 ~0.001	N/A	~1.46	~	6.73 – 8.00 ×10 <sup>22*</sup>	215 C
Dodecane	No (<20%)	0.75	0.001 ~0.000	N/A	1.422	~	6.89×10 <sup>22</sup>	71 C

<sup>‡</sup>calculated from density; \*mineral oil, a mixture of CH compounds, estimated from C<sub>24</sub> – C<sub>28</sub> based on its molecular weight.