

**Table 222: Muons in Polyethylene terephthalate (Mylar) (C<sub>10</sub>H<sub>8</sub>O<sub>4</sub>)<sub>n</sub>**

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.52037	1.400	78.7	0.12679	3.3076	0.1562	2.6507	3.3262	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	7.420				7.420	$7.451 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	5.789				5.789	$1.362 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	4.522				4.522	$2.548 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	3.509				3.509	$5.093 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	2.997				2.997	$8.197 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.250				2.250	$2.409 \times 10^1$		
100. MeV	$1.764 \times 10^2$	2.108				2.108	$3.329 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.963				1.964	$5.305 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.880				1.880	$8.440 \times 10^1$		
300. MeV	$3.917 \times 10^2$	1.849			0.000	1.849	$1.382 \times 10^2$		
317. MeV	$4.096 \times 10^2$	1.848			0.000	1.849	<i>Minimum ionization</i>		
400. MeV	$4.945 \times 10^2$	1.855			0.000	1.855	$1.922 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.926	0.000		0.000	1.926	$4.039 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.958	0.000		0.000	1.959	$5.069 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.010	0.000		0.001	2.011	$7.083 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.068	0.001	0.000	0.001	2.070	$1.002 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	2.134	0.001	0.001	0.001	2.137	$1.477 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.180	0.001	0.001	0.002	2.184	$1.940 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.284	0.003	0.003	0.004	2.294	$3.721 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.316	0.004	0.004	0.005	2.329	$4.586 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.362	0.007	0.007	0.007	2.382	$6.283 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.408	0.010	0.012	0.009	2.439	$8.770 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.458	0.017	0.020	0.013	2.509	$1.281 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.492	0.024	0.030	0.018	2.564	$1.675 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.571	0.054	0.073	0.034	2.732	$3.184 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.595	0.070	0.096	0.042	2.804	$3.906 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.632	0.104	0.144	0.059	2.939	$5.299 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.670	0.156	0.221	0.084	3.131	$7.276 \times 10^4$		
300. GeV	$3.001 \times 10^5$	2.713	0.246	0.351	0.125	3.436	$1.032 \times 10^5$		
400. GeV	$4.001 \times 10^5$	2.744	0.340	0.487	0.167	3.738	$1.311 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.818	0.731	1.052	0.337	4.939	$2.239 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.843	0.932	1.345	0.424	5.544	$2.621 \times 10^5$		
1.05 TeV	$1.051 \times 10^6$	2.848	0.984	1.418	0.446	5.696	<i>Muon critical energy</i>		
1.40 TeV	$1.400 \times 10^6$	2.879	1.339	1.926	0.601	6.746	$3.274 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.919	1.964	2.818	0.871	8.572	$4.062 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.965	3.011	4.303	1.334	11.612	$5.061 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.997	4.076	5.809	1.806	14.688	$5.825 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.078	8.390	11.874	3.769	27.112	$7.799 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.105	10.572	14.929	4.781	33.387	$8.463 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.145	14.925	21.017	6.865	45.952	$9.480 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.189	21.511	30.199	10.067	64.966	$1.057 \times 10^6$		
30.0 TeV	$3.000 \times 10^7$	3.239	32.477	45.477	15.625	96.818	$1.183 \times 10^6$		
40.0 TeV	$4.000 \times 10^7$	3.276	43.502	60.804	21.330	128.912	$1.272 \times 10^6$		
80.0 TeV	$8.000 \times 10^7$	3.365	87.697	122.167	45.272	258.501	$1.487 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.395	109.848	152.885	57.684	323.812	$1.556 \times 10^6$		