

**Table 233: Muons in Polyvinylidene chloride (Saran) (C<sub>2</sub>H<sub>2</sub>Cl<sub>2</sub>)<sub>n</sub>**

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.49513	1.700	134.3	0.15466	3.1020	0.1314	2.9009	4.2506	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]	
10.0 MeV	$4.704 \times 10^1$	6.569				6.569	$8.463 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	5.140				5.140	$1.542 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	4.026				4.026	$2.876 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.132				3.132	$5.731 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	2.680				2.680	$9.204 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	2.020				2.020	$2.693 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.898				1.898	$3.717 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.776				1.776	$5.906 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.709				1.709	$9.363 \times 10^1$	
288. MeV	$3.788 \times 10^2$	1.690			0.000	1.690	<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	1.690			0.000	1.690	$1.526 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.702			0.000	1.702	$2.116 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.782	0.000		0.000	1.783	$4.412 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.817	0.000		0.000	1.817	$5.523 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.872	0.001	0.000	0.001	1.873	$7.689 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	1.932	0.001	0.000	0.001	1.935	$1.084 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	2.000	0.002	0.001	0.001	2.005	$1.591 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	2.047	0.003	0.002	0.002	2.054	$2.083 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	2.154	0.006	0.006	0.004	2.170	$3.972 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.186	0.008	0.008	0.005	2.207	$4.885 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.232	0.012	0.014	0.006	2.265	$6.673 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	2.278	0.019	0.022	0.009	2.329	$9.284 \times 10^3$	
30.0 GeV	$3.011 \times 10^4$	2.327	0.032	0.039	0.013	2.411	$1.350 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.360	0.045	0.057	0.017	2.479	$1.759 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.435	0.101	0.137	0.033	2.706	$3.301 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.459	0.131	0.180	0.041	2.810	$4.026 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.493	0.192	0.270	0.056	3.012	$5.401 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.530	0.289	0.412	0.080	3.311	$7.300 \times 10^4$	
300. GeV	$3.001 \times 10^5$	2.571	0.454	0.652	0.120	3.797	$1.012 \times 10^5$	
400. GeV	$4.001 \times 10^5$	2.600	0.625	0.900	0.160	4.286	$1.260 \times 10^5$	
603. GeV	$6.031 \times 10^5$	2.642	0.982	1.418	0.242	5.284	<i>Muon critical energy</i>	
800. GeV	$8.001 \times 10^5$	2.671	1.335	1.927	0.323	6.257	$2.028 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.694	1.701	2.454	0.406	7.256	$2.324 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.729	2.437	3.506	0.576	9.248	$2.811 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.766	3.565	5.116	0.834	12.281	$3.373 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.810	5.451	7.793	1.276	17.331	$4.055 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.841	7.367	10.502	1.727	22.438	$4.561 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.918	15.110	21.406	3.599	43.034	$5.826 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.943	19.019	26.893	4.563	53.419	$6.242 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.982	26.824	37.830	6.545	74.181	$6.875 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	3.023	38.617	54.316	9.588	105.545	$7.550 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	3.071	58.230	81.759	14.863	157.924	$8.319 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	3.106	77.929	109.281	20.272	210.587	$8.866 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	3.191	156.900	219.450	42.928	422.470	$1.018 \times 10^6$	
100. TeV	$1.000 \times 10^8$	3.219	196.479	274.592	54.657	528.948	$1.060 \times 10^6$	