

## Muons in rubber neoprene $[(C_4H_5Cl)_n]$

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.51956	1.230	93.0	0.09763	3.3632	0.1501	2.9461	3.7911	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	7.248				7.248	$7.641 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	5.659				5.660	$1.395 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	4.424				4.424	$2.608 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	3.436				3.436	$5.209 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	2.936				2.936	$8.377 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.207				2.207	$2.459 \times 10^1$		
100. MeV	$1.764 \times 10^2$	2.070				2.070	$3.397 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.931				1.931	$5.407 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.853				1.853	$8.590 \times 10^1$		
300. MeV	$3.917 \times 10^2$	1.826			0.000	1.826	$1.404 \times 10^2$		
304. MeV	$3.959 \times 10^2$	1.826			0.000	1.826	<i>Minimum ionization</i>		
400. MeV	$4.945 \times 10^2$	1.835			0.000	1.835	$1.951 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.911	0.000		0.000	1.912	$4.087 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.946	0.000		0.000	1.946	$5.123 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.001	0.000	0.000	0.001	2.002	$7.148 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.061	0.001	0.000	0.001	2.063	$1.010 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	2.130	0.001	0.001	0.001	2.133	$1.486 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.177	0.002	0.001	0.002	2.183	$1.949 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.286	0.005	0.004	0.004	2.299	$3.729 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.318	0.006	0.006	0.005	2.336	$4.592 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.366	0.009	0.010	0.006	2.392	$6.283 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.413	0.015	0.017	0.009	2.454	$8.758 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.464	0.024	0.029	0.013	2.531	$1.277 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.499	0.034	0.043	0.017	2.593	$1.667 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.577	0.077	0.104	0.034	2.792	$3.151 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.602	0.100	0.137	0.042	2.881	$3.856 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.638	0.147	0.206	0.058	3.049	$5.205 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.676	0.221	0.315	0.082	3.294	$7.097 \times 10^4$		
300. GeV	$3.001 \times 10^5$	2.719	0.348	0.498	0.123	3.689	$9.964 \times 10^4$		
400. GeV	$4.001 \times 10^5$	2.750	0.480	0.690	0.164	4.084	$1.254 \times 10^5$		
796. GeV	$7.959 \times 10^5$	2.824	1.022	1.473	0.330	5.648	<i>Muon critical energy</i>		
800. GeV	$8.001 \times 10^5$	2.824	1.027	1.481	0.331	5.665	$2.082 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.849	1.310	1.889	0.416	6.464	$2.412 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.885	1.878	2.701	0.590	8.055	$2.966 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.925	2.750	3.945	0.855	10.475	$3.617 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.970	4.210	6.015	1.309	14.505	$4.425 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	3.003	5.693	8.111	1.772	18.580	$5.033 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.084	11.694	16.551	3.696	35.026	$6.575 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.110	14.726	20.800	4.687	43.324	$7.088 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.151	20.778	29.267	6.728	59.924	$7.870 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.194	29.928	42.034	9.862	85.019	$8.706 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	3.245	45.152	63.281	15.299	126.977	$9.662 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	3.281	60.447	84.593	20.878	169.199	$1.034 \times 10^6$		
80.0 TeV	$8.000 \times 10^7$	3.371	121.766	169.907	44.274	339.317	$1.198 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.400	152.498	212.611	56.396	424.905	$1.251 \times 10^6$		