## Muons in Nylon type 6/10 [$(CH(CH_2)_7NO)_n$]

| $\langle Z/A \rangle$ | $\rho$ [g/cm$^3$] | $I$ [eV] | $a$ | $k = m_s$ | $x_0$ | $x_1$ | $\overline{C}$ | $\delta_0$ |
|---|---|---|---|---|---|---|---|---|
| 0.55236 | 1.140 | 63.2 | 0.11852 | 3.3912 | 0.1304 | 2.5681 | 3.0333 | 0.00 |

| $T$ | $p$ [MeV/$c$] | Ionization | Brems | Pair prod | Photonucl | Total | CSDA range [g/cm$^2$] |
|---|---|---|---|---|---|---|---|
| | | [MeV cm$^2$/g] | | | | | |
| 10.0 MeV | $4.704 \times 10^1$ | 8.101 | | | | 8.101 | $6.811 \times 10^{-1}$ |
| 14.0 MeV | $5.616 \times 10^1$ | 6.314 | | | | 6.314 | $1.246 \times 10^0$ |
| 20.0 MeV | $6.802 \times 10^1$ | 4.927 | | | | 4.927 | $2.334 \times 10^0$ |
| 30.0 MeV | $8.509 \times 10^1$ | 3.820 | | | | 3.820 | $4.672 \times 10^0$ |
| 40.0 MeV | $1.003 \times 10^2$ | 3.260 | | | | 3.260 | $7.525 \times 10^0$ |
| 80.0 MeV | $1.527 \times 10^2$ | 2.440 | | | | 2.440 | $2.215 \times 10^1$ |
| 100. MeV | $1.764 \times 10^2$ | 2.283 | | | | 2.284 | $3.065 \times 10^1$ |
| 140. MeV | $2.218 \times 10^2$ | 2.124 | | | | 2.124 | $4.890 \times 10^1$ |
| 200. MeV | $2.868 \times 10^2$ | 2.030 | | | | 2.031 | $7.791 \times 10^1$ |
| 300. MeV | $3.917 \times 10^2$ | 1.993 | | | 0.000 | 1.993 | $1.278 \times 10^2$ |
| 328. MeV | $4.201 \times 10^2$ | 1.992 | | | 0.000 | 1.992 | *Minimum ionization* |
| 400. MeV | $4.945 \times 10^2$ | 1.997 | | | 0.000 | 1.997 | $1.779 \times 10^2$ |
| 800. MeV | $8.995 \times 10^2$ | 2.068 | 0.000 | | 0.000 | 2.068 | $3.748 \times 10^2$ |
| 1.00 GeV | $1.101 \times 10^3$ | 2.101 | 0.000 | | 0.000 | 2.102 | $4.707 \times 10^2$ |
| 1.40 GeV | $1.502 \times 10^3$ | 2.155 | 0.000 | | 0.001 | 2.156 | $6.585 \times 10^2$ |
| 2.00 GeV | $2.103 \times 10^3$ | 2.214 | 0.000 | 0.000 | 0.001 | 2.216 | $9.328 \times 10^2$ |
| 3.00 GeV | $3.104 \times 10^3$ | 2.282 | 0.001 | 0.001 | 0.001 | 2.285 | $1.377 \times 10^3$ |
| 4.00 GeV | $4.104 \times 10^3$ | 2.330 | 0.001 | 0.001 | 0.002 | 2.334 | $1.809 \times 10^3$ |
| 8.00 GeV | $8.105 \times 10^3$ | 2.439 | 0.003 | 0.003 | 0.004 | 2.448 | $3.478 \times 10^3$ |
| 10.0 GeV | $1.011 \times 10^4$ | 2.472 | 0.004 | 0.004 | 0.005 | 2.485 | $4.288 \times 10^3$ |
| 14.0 GeV | $1.411 \times 10^4$ | 2.520 | 0.006 | 0.006 | 0.007 | 2.539 | $5.880 \times 10^3$ |
| 20.0 GeV | $2.011 \times 10^4$ | 2.569 | 0.009 | 0.011 | 0.009 | 2.599 | $8.214 \times 10^3$ |
| 30.0 GeV | $3.011 \times 10^4$ | 2.622 | 0.016 | 0.019 | 0.014 | 2.670 | $1.201 \times 10^4$ |
| 40.0 GeV | $4.011 \times 10^4$ | 2.658 | 0.022 | 0.028 | 0.018 | 2.726 | $1.571 \times 10^4$ |
| 80.0 GeV | $8.011 \times 10^4$ | 2.741 | 0.050 | 0.068 | 0.035 | 2.894 | $2.993 \times 10^4$ |
| 100. GeV | $1.001 \times 10^5$ | 2.767 | 0.065 | 0.089 | 0.043 | 2.965 | $3.676 \times 10^4$ |
| 140. GeV | $1.401 \times 10^5$ | 2.806 | 0.096 | 0.134 | 0.060 | 3.096 | $4.995 \times 10^4$ |
| 200. GeV | $2.001 \times 10^5$ | 2.847 | 0.145 | 0.205 | 0.084 | 3.282 | $6.877 \times 10^4$ |
| 300. GeV | $3.001 \times 10^5$ | 2.892 | 0.230 | 0.327 | 0.126 | 3.576 | $9.794 \times 10^4$ |
| 400. GeV | $4.001 \times 10^5$ | 2.925 | 0.317 | 0.454 | 0.169 | 3.865 | $1.248 \times 10^5$ |
| 800. GeV | $8.001 \times 10^5$ | 3.004 | 0.683 | 0.982 | 0.340 | 5.010 | $2.155 \times 10^5$ |
| 1.00 TeV | $1.000 \times 10^6$ | 3.030 | 0.872 | 1.256 | 0.428 | 5.585 | $2.533 \times 10^5$ |
| 1.18 TeV | $1.180 \times 10^6$ | 3.049 | 1.042 | 1.499 | 0.508 | 6.098 | *Muon critical energy* |
| 1.40 TeV | $1.400 \times 10^6$ | 3.069 | 1.253 | 1.800 | 0.607 | 6.729 | $3.184 \times 10^5$ |
| 2.00 TeV | $2.000 \times 10^6$ | 3.111 | 1.839 | 2.635 | 0.879 | 8.464 | $3.978 \times 10^5$ |
| 3.00 TeV | $3.000 \times 10^6$ | 3.159 | 2.821 | 4.026 | 1.347 | 11.353 | $4.995 \times 10^5$ |
| 4.00 TeV | $4.000 \times 10^6$ | 3.194 | 3.822 | 5.436 | 1.823 | 14.275 | $5.779 \times 10^5$ |
| 8.00 TeV | $8.000 \times 10^6$ | 3.280 | 7.876 | 11.120 | 3.806 | 26.083 | $7.821 \times 10^5$ |
| 10.0 TeV | $1.000 \times 10^7$ | 3.308 | 9.928 | 13.984 | 4.828 | 32.048 | $8.512 \times 10^5$ |
| 14.0 TeV | $1.400 \times 10^7$ | 3.351 | 14.023 | 19.688 | 6.934 | 43.997 | $9.573 \times 10^5$ |
| 20.0 TeV | $2.000 \times 10^7$ | 3.397 | 20.220 | 28.295 | 10.171 | 62.083 | $1.072 \times 10^6$ |
| 30.0 TeV | $3.000 \times 10^7$ | 3.451 | 30.540 | 42.612 | 15.792 | 92.396 | $1.203 \times 10^6$ |
| 40.0 TeV | $4.000 \times 10^7$ | 3.489 | 40.919 | 56.977 | 21.563 | 122.949 | $1.296 \times 10^6$ |
| 80.0 TeV | $8.000 \times 10^7$ | 3.585 | 82.531 | 114.488 | 45.796 | 246.401 | $1.522 \times 10^6$ |
| 100. TeV | $1.000 \times 10^8$ | 3.616 | 103.393 | 143.279 | 58.363 | 308.651 | $1.594 \times 10^6$ |