

## MicroShield® V&V Version 12

Grove Software has a verification and validation (V&V) package available for the MicroShield® software. MicroShield® Verification and Validation (V&V) Version 12 provides documentation and additional software tools as an aid to users in their evaluations and to support internal software qualification. The verification and validation package provides the following:

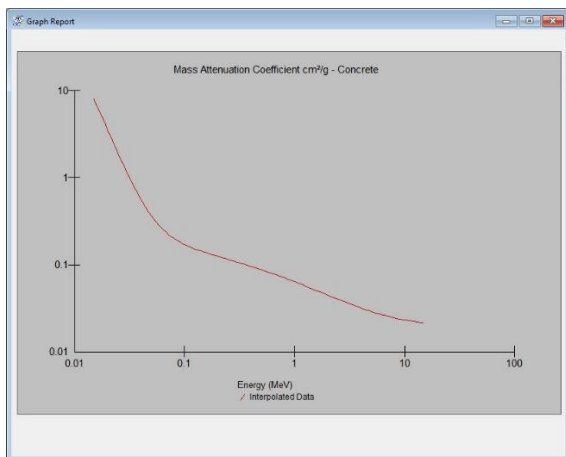
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MicroShield Verification and Validation 12.00

Deep dose equivalent index, H(1,d), per unit fluence for photos incident in various geometries on the ICRU sphere.  
Reference: Table 4, ICRP 51 - 1987, "Data for Use in Protection Against External Radiation."  
Conversion Coefficient: 1E-12 Sv cm<sup>2</sup>

Group No.	Photon Energy (MeV)	Plane Parallel Beam	Two Opposed Plane Parallel Beams	360° Rotating Plane Parallel Beams	Isometric
1	0.010	7.690e-02	3.860e-02	1.330e-02	6.700e-03
2	0.015	8.430e-01	4.220e-01	2.330e-01	1.650e-01
3	0.020	1.020e+00	5.430e-01	3.560e-01	2.930e-01
4	0.030	7.880e-01	3.950e-01	3.320e-01	3.060e-01
5	0.040	6.190e-01	3.120e-01	2.830e-01	2.710e-01
6	0.050	5.330e-01	2.730e-01	2.560e-01	2.490e-01
7	0.060	5.080e-01	2.640e-01	2.510e-01	2.470e-01
8	0.080	5.370e-01	2.860e-01	2.780e-01	2.760e-01
9	0.100	6.200e-01	3.400e-01	3.400e-01	3.290e-01
10	0.150	8.920e-01	5.400e-01	5.400e-01	5.040e-01
11	0.200	1.190e+00	7.670e-01	7.670e-01	7.030e-01
12	0.300	1.810e+00	1.270e+00	1.270e+00	1.140e+00
13	0.400	2.380e+00	1.760e+00	1.760e+00	1.560e+00
14	0.500	2.890e+00	2.230e+00	2.230e+00	1.970e+00

- The V&V test plans and results for user records.
- User may repeat the tests for comparison and further evidence.
- Traceability for the nuclear and material data used in the program.
- A means to exercise routines to verify that calculations are done properly.



The MicroShield® Validation Report consolidates a myriad of information sources used over the years for development of MicroShield®, many of which would be difficult to find by users. The MicroShield® V&V Software is a program that independently exercises various MicroShield® processing routines and displays the data files that are provided.

MicroShield® V&V Version 12 Software is compatible with Microsoft Windows®. Complete installation may require up to 30MB of hard disk space.

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