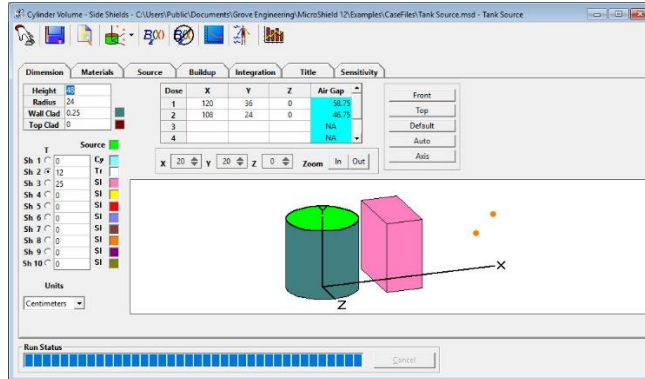




MicroShield® Version 12

MicroShield® v12 is a comprehensive photon/gamma ray shielding and dose assessment program. It is widely used for designing shields, estimating source strength from radiation measurements, minimizing exposure to people, and teaching shielding principles.



MicroShield® is useful to health physicists, waste managers, and design engineers, and radiological engineers, among others. One of the primary advantages of this software is that it only requires a basic knowledge of radiation and shielding principles. MicroShield® v12 improves the computational speeds of the calculations performed as well as:

- Installation process has been enhanced and is now compatible with Microsoft® System Center Configuration Manager
- Improved Microsoft Windows® 10 compatibility
- Ability to export results using any version Microsoft Office®
- Installations can be performed silently
- Check for Update feature has been added to allow the user to check for the latest update

Dose Equivalent Report			
Program	MicroShield, Grove Software, a Division of Grove Engineering, Inc.		
Version	11.00		
Organization	GSI		
Date / Time	This case was run on Monday, September 26, 2016 at 3:18:26 PM		
File Name	C:\Users\man\Documents\MicroShield 11\Examples\CaseFiles\ESIS_D2.MSD		
Case Title	Example 3-1		
Description	ESIS Problem #1 - Dose Point D2 -Buildup with Steel		
Geometry	7 - Cylinder Volume - Side Shields		
Sensitivity	No		
Results			
Nominal Case			
Dose Point No.1	(220, 50.15, 0)cm		
Variable	Not Applicable		
Results (Summed over energies)	Units	Without Buildup	With Buildup
Photon Fluence Rate (flux)	Photons/cm ² /sec	9.410e+006	2.838e+007
Photon Energy Fluence Rate	MeV/cm ² /sec	1.309e+007	3.720e+007
Exposure and Dose Rates			
Exposure Rate in Air	mR/hr	2.196e+004	6.296e+004
Absorbed Dose Rate in Air	mGy/hr	1.917e+002	5.496e+002
Absorbed Dose Rate in Air	mrad/hr	1.917e+004	5.496e+004

As always, MicroShield® comes with all the required reference data needed to model and execute many shielding and dose assessment problems.



MicroShield® Version 12

Here are some of MicroShield's® specific features:

- Fully compatible with Microsoft Windows® 10, 8/8.1, 7, Vista® and XP®.
- Ability to export results into Microsoft Office® applications.
- Ability to utilize international numerical formats (decimal commas, etc.).
- Current industry standard dose conversion factors including ICRP-116, ICRP-74, ICRP-51 as well as ANSI/ANS-6.1.1.
- Sixteen geometries that accommodate offset dose points and as many as ten standard shields plus source self-shielding and cylinder cladding.
- The geometry display for entry is re-scaled as dimensions are entered. Dimensional data are accepted in meters, centimeters, feet, or inches.
- Library data (radionuclides, attenuation, buildup, and dose conversion) reflect standard data from industry standard radiation libraries ICRP-38 and ICRP-107 as well as ANSI/ANS standards and RSICC publications.
- Buildup and uncollided results are both automatically and simultaneously calculated.
- Sources may be created and saved and moved among cases (either as nuclides or energies) and as concentrations or totals. Several photon grouping methods are provided including custom (user defined) grouping methods.
- Source decay can be calculated with daughter products generated using the same algorithms as found in the RadDecay® software

MicroShield® v12 is fully interactive and utilizes extensive input error checking. Integrated tools provide graphing of results, material and source file creation, source inference with decay (dose-to-Ci calculations accounting for decay and daughter buildup), projection of exposure rate versus time as a result of decay, access to material and nuclide data and decay heat calculations.

MicroShield® v12 is compatible with Microsoft Windows®. Complete installation may require up to 30MB of hard disk space.

License Types: Subscription licenses which permit installation as a Single User, Local Area Site License, and Wide Area Site License.