

# Flooring/Carpeting Underlayment Matrix

C. 2012 Green Building Supply

Ratings: 10 best to 1 worst.

Type	Smooth out subfloor	Safety	Noise Reduction	Moisture from above	Vapor from below	Abrasion Resistance	Crack Isolation	Thermal, R-value	Load bearing	mold resistance (assumes anti-microbial added to some)	Flammability
Cork 1/2"	8	10	8	5	5	5	5	2.5	1	9	9
Cork 1/4"	7	10	6	5	5	5	5	2	1	9	9
Cork 1/8"	6	10	4	5	5	5	5	1.5	1	9	9
Cork 1/8" w/vapor barrier	6	10	4	5	10	5	5	1.5	1	9	9
Recycled fabric 1/8 w/vapor barrier	6	9	4	10	10	5	5	1.5	1	9	7
Rubber 1/8	6	7	4	5	5	5	5	0.01	1	9	7
Rubber 1/8 w/vapor barrier	6	7	4	5	10	5	5	0.01	1	9	7
Rubber 3/8	6	7	5	5	5	5	5	1	1	9	7
Rubber 7/16	6	7	6	5	5	5	5	2	1	9	7
Wool 1/2"	7	10	8	5	8	5	4	2	1	9	10
Urethane 1/2"	7	7	7	7	7	5	4	2	1	9	7
Plywood 1/4"	10	5	2	2	2	1	10	1	10	1	2
Cement board 1/2"	10	5	2	2	2	1	10	0.5	10	1	10
Plastic membrane 1/8"	10	10	2	10	10	5	10	0.1	8	10	8
Plastic membrane w/thinset 1/4	10	10	5	10	10	5	10	0.1	10	10	8
Accoustic caulk compound	1	9	10	1	1	1	1	1	1	1	7

This list is by no means exhaustive, and is meant to provide a general framework of understanding. These ratings are based on the author's experience in more than 22 years in the flooring industry. While there are standards for specific categories, there is no industry-wide accepted metric for each category. The above underlayments all come in various thicknesses, which will produce different results. Different manufacturers will also produce different results.