

Vapour Resistance Information

Learn how to convert Vapour Resistance Information.

How to use: Start with a figure on the left, then find the figure you want to end up with on the top. Find the corresponding cell to tell you how to work it out.

Conversion Table

	Mu value (μ)	Equivalent Air Layer Thickness (Sd Value)	Vapour Resistance (MNs/g)	Vapour Resistivity (MNs/gm)
Mu value (μ)		Multiply by material thickness in metres	Multiply by material thickness in metres then Divide by vapour permeability of still air (0.2)	Divide by vapour permeability of still air (0.2)
Equivalent Air Layer Thickness (Sd Value)	Divide by material thickness in metres		Divide by vapour permeability of still air (0.2)	Divide by material thickness in metres then Divide by vapour permeability of still air (0.2)
Vapour Resistance (MNs/g)	Multiply by vapour permeability of still air (0.2) then Divide by material thickness in metres	Multiply by vapour permeability of still air (0.2)		Divide by material thickness in metres
Vapour Resistivity (MNs/gm)	Multiply by vapour permeability of still air (0.2)	Multiply by material thickness in metres then Multiply by vapour permeability of still air (0.2)	Multiply by material thickness in metres	

To convert millimetres to metres, divide by 1000

Descriptions

Mu value (μ)	Water vapour resistance factor. It is a measure of a materials relative reluctance to let water vapour pass through. This is a relative value and doesn't change for different material thickness's.
Equivalent Air Layer Thickness (Sd Value)	As the name suggests, this is a materials equivalent air layer thickness. In the UK, vapour travels through still air at a typical rate, so this value gives a materials equivalent air layer thickness in metres. The Sd value will be greater for thicker material - i.e. a 1.0mm EPDM has a greater air layer thickness than 0.5mm EPDM.
Vapour Resistance (MNs/g)	Vapour resistance is a measure of a materials reluctance to let water vapour pass through. Unlike a Mu-value, the vapour resistance takes into account the materials thickness and can be quoted for a particular thickness of material.
Vapour Resistivity (MNs/gm)	Vapour resistivity is similar to vapour resistance, however, vapour resistivity is a relative value for the bulk material - i.e. it doesn't change for different material thickness.