



**RE: TOG values for GenieMat®**

Pliteq has undertaken laboratory testing on **GenieMat RST** products to obtain the R(SI) values of varying thicknesses of the product range. This technical note demonstrates these values when converted into TOG ratings.

### **Analysis of Thermal Resistance Testing**

**Laboratory:** KICT (Korean Institute of Civil Engineering and Building Technology)

**Date Tested:** June 12th 2017

**Test Report Number:** KICT-R-K-2017-00899-1

**Analysis by:** Matthew Golden, Director of R&D at Pliteq

**Results:** Thermal Conductivity - 0.133 W/(m\*K)

**Density** - 986.1 kg.m<sup>3</sup>

**Thickness** – 16.35 mm

**Known:**

$$U = 1/R = Q_A/\Delta T = k/L$$

U has SI units of W/(m<sup>2</sup>K) and U.S. units of BTU/(hr °F ft<sup>2</sup>);

R-value (U.S.) = RSI (SI) × 5.678263337

RSI (SI) = R-value (U.S.) × 0.1761101838

So, for GenieMat RST15

R(SI) is 0.11 R(US) is 0.64

**Therefore:**

**GenieMat RST02** = R(SI) 0.015 or 0.15 Tog

**GenieMat RST05** = R(SI) 0.037 or 0.37 Tog

**GenieMat RST10** = R(SI) 0.07 or 0.75 Tog

**GenieMat RST15** = R(SI) 0.11 or 1.1 Tog

**Pliteq** is happy to work with and assist the appointed contractor in the implementation of these systems from a technical, design and installation perspective.

I trust that the information contained within this technical note is of use and helpful in the specification process on this project, but should you require anything further, please don't hesitate to get in touch.

Kind Regards,

James Bligh

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