

Fireply X® – NRC Acoustic Testing

Statement of Performance

What is NRC Testing?

A Noise Reduction Coefficient, commonly known as NRC, is a single number rating which represents the average of sound absorption coefficients of a material at specific mid-range frequencies (tested at 250, 500, 1,000, and 2,000Hz octaves). The purpose of an NRC rating is to provide a simpler way to determine how well an acoustical product absorbs mid-range sound (generally thought of as the range of speech frequencies). NRC ratings vary from product to product and are affected by the type of absorbent material, its thickness, density, and fixing method.

Fireply X® Acoustic Performance

| Panel thickness (mm) | Perforation type | Cavity (mm) | Insulation within void | NRC |
|----------------------|------------------|-------------|--|-------------------|
| 12 | 5/16S & 5/16D | 28 | nil - void empty | 0.55 ¹ |
| 12 | 5/16S & 5/16D | 28 | 25mm thick 14kg/m ³ glasswool | 0.60 ³ |
| 12 | 5/16S & 5/16D | 28 | 25mm thick 32kg/m ³ glasswool | 0.65 ¹ |
| 12 | 5/16S & 5/16D | 50 | nil - void empty | 0.60 ² |
| 12 | 5/16S & 5/16D | 50 | 25mm thick 32kg/m ³ glasswool | 0.60 ² |
| 12 | 5/16S & 5/16D | 92 | nil - void empty | 0.60 ¹ |
| 12 | 5/16S & 5/16D | 92 | 75mm thick 14kg/m ³ glasswool | 0.60 ³ |
| 12 | 5/16S & 5/16D | 92 | 75mm thick 32kg/m ³ glasswool | 0.60 ¹ |
| 12 | 8/16S & 8/16D | 28 | nil - void empty | 0.60 ¹ |
| 12 | 8/16S & 8/16D | 28 | 25mm thick 14kg/m ³ glasswool | 0.70 ³ |
| 12 | 8/16S & 8/16D | 28 | 25mm thick 32kg/m ³ glasswool | 0.85 ¹ |
| 12 | 8/16S & 8/16D | 50 | nil - void empty | 0.60 ² |
| 12 | 8/16S & 8/16D | 50 | 25mm thick 32kg/m ³ glasswool | 0.80 ² |
| 12 | 8/16S & 8/16D | 92 | nil - void empty | 0.80 ¹ |
| 12 | 8/16S & 8/16D | 92 | 75mm thick 14kg/m ³ glasswool | 0.85 ³ |
| 12 | 8/16S & 8/16D | 92 | 75mm thick 32kg/m ³ glasswool | 0.85 ¹ |
| 18 | 5/16S & 5/16D | 28 | 25mm thick 14kg/m ³ glasswool | 0.55 ³ |
| 18 | 5/16S & 5/16D | 28 | 25mm thick 32kg/m ³ glasswool | 0.65 ¹ |
| 18 | 5/16S & 5/16D | 92 | 75mm thick 14kg/m ³ glasswool | 0.50 ³ |
| 18 | 5/16S & 5/16D | 92 | 75mm thick 32kg/m ³ glasswool | 0.60 ¹ |

¹ CSIRO tested result – certificate available

² Acoustically modelled result – report available

³ Interpolated result

CSIRO Report Numbers: AC336-01-1 – AC336-10-1 Issue Date: 18 October, 2022

Modelled & Interpolated Data: 2274401.0107.R01V02 Issue Date: 1 March, 2023

Technical Reference

The associated reports reference the following:

- AS ISO 354-2006 [R2016]: Acoustics-Measurement of sound adsorption in a reverberation room
- AS ISO 11654-2002 [R2016] (ISO 11654:1997): Acoustics-Rating of sound absorption-Materials and systems

We are happy to answer questions, provide guidance and assist in determining if **Fireply X®** is the solution for your design challenges. Please contact us if require more information or further documentation.

Yours sincerely



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For more information from our expert team on our natural, unique and beautiful timber veneers of exceptional quality:

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