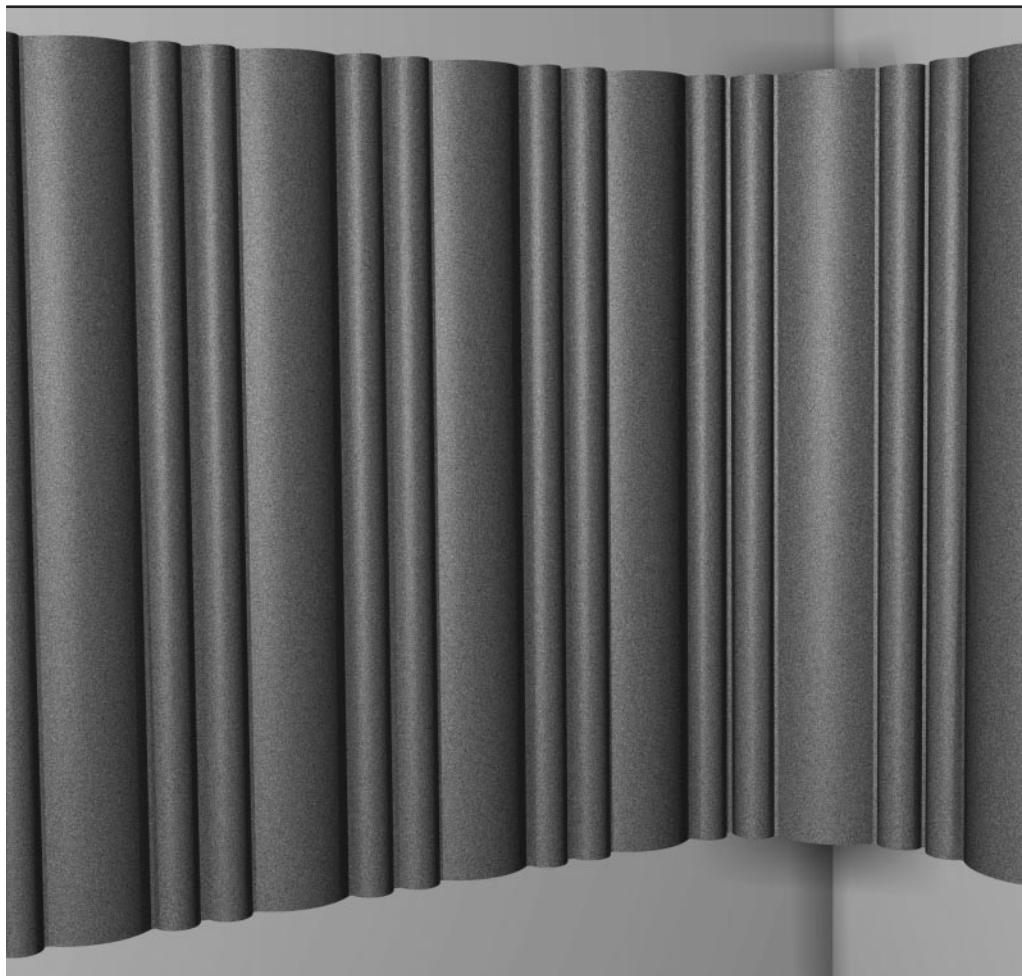


ProFoam™



*The First Optimized and Nestable
Profile Foam From The Acoustical
Industry's Leading Innovator*

Acoustical foam provides the most cost-effective approach to controlling interfering reflections and noise. To optimize the performance and appearance of conventional acoustical foam, RPG® patented an innovative profile design. This new nestable profile utilizes a Variable Depth Air Cavity (VDAC™) to strategically space most of the foam away from the mounting surface for optimum absorption efficiency and economy. By combining ProFoam™ and RPG®'s new ProCorner™, a complete acoustical foam room treatment system is possible.



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Problem and Solution

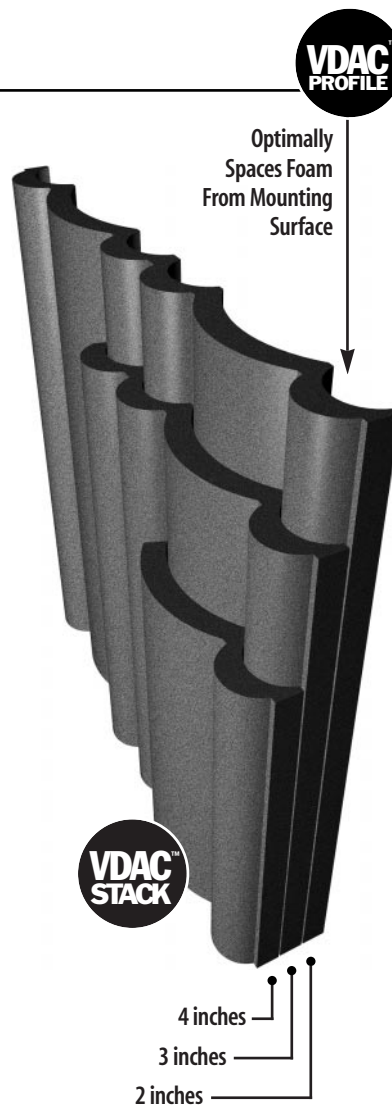
Problems

There are three aspects of conventional foam which can be optimized:

1. Conventional flat backed wedge and convoluted foams are applied directly to the mounting surface, where the particle velocity is zero. Since no absorption can occur when the particle velocity is zero, a significant portion of solid foam is wasted.
2. To provide appropriate absorption coefficients, conventional foam is sold in several thicknesses. If an application requires additional absorption at a later date, the existing foam must be removed and a panel of greater thickness applied.
3. Conventional foam has limited interior design application because of its "industrial" appearance and potential safety hazards.

Solution

To solve these problems, RPG® patented ProFoam™, the first nestable, Variable Depth Air Cavity (VDAC™) foam. ProFoam™ uses an innovative, attractive, and universal profile to space most of the foam away from the surface for optimum absorption. Since ProFoam™ is nestable, one size fits all applications. Unlike conventional foam, more absorption can be achieved at a later date by simply adding additional nestable layers to form a VDAC™ Stack. When formed from fire-safe Melaflex™, ProFoam™ can be used in all spaces that require Class A interior finish treatment.



FEATURES

- First nestable profile foam
- First profile foam using patented VDAC™ technology
- Available in Class A Melaflex™ and UL94 Polyflex™ (polyurethane)

BENEFITS

- Seamlessly integrates with the ProCorner™ to provide a complementary acoustical system for interior design and sound control
- One universal profile fits all applications
- Begin economically and upgrade performance as needed
- Nestable profile can be layered to any thickness offering unlimited absorption at any time
- Can be applied in vertical and horizontal combinations
- Can be cut into squares and various width strips to fill required area
- Melaflex™ ProFoam™ complies with all interior finish Class A fire safety codes
- New modern look allows use as an interior design element
- VDAC™ technology allows optimum performance at the lowest prices

APPLICATIONS

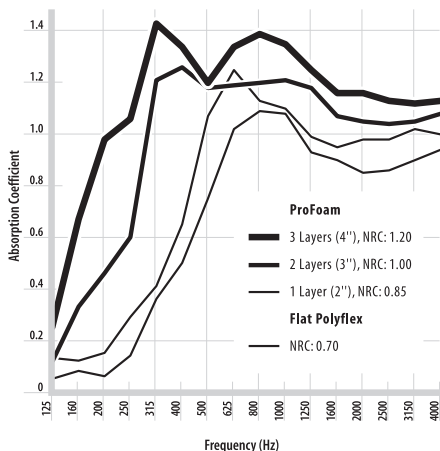
Melaflex™ ProFoam™ is fabricated from nonfibrous, fire resistant, open cell, lightweight (0.6 lb./cubic foot) BASF™ melamine foam. It is in full compliance with all National Life Safety Codes for Class A interior use. Melaflex™ has a flame spread of 10 and a smoke development rating of 50 as per ASTM E-84 testing standards. Therefore, Melaflex™ ProFoam™ can be used in any critical listening space

Polyflex™ ProFoam™ is fabricated from a UL94 2 lb/cubic foot polyester urethane which should only be used in Class B or C spaces. Since Polyflex™ is flammable, extreme care should be exercised in its use as an interior finish

SPECIFICATIONS

- Sizes: 2' (L) x 2' (W) x 2" (D) and 4' (L) x 2' (W) x 2" (D)
- Melaflex™ is available in white, white flec, and gray flec
- Class B/C Polyflex™ is available in charcoal gray, blue, and purple

Performance Specifications



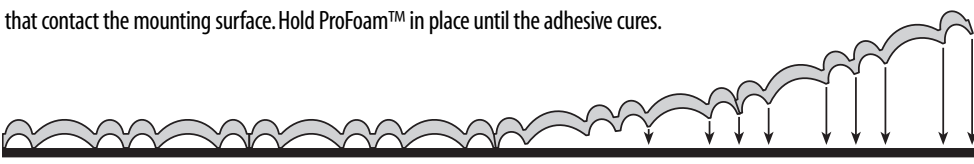
Absorption

VDAC™ technology provides minimum point-of-contact with the mounting surface, thus enabling most of the foam to be positioned away from the wall for optimum absorption. Unlike conventional foams which are applied in a fixed thickness, additional absorption can be achieved by simply stacking new layers on top of the existing ProFoam™.

Measured at IBM Hudson Valley Acoustics Lab according to ASTM C423.

Installation

Installation of ProFoam™ is quick and easy. Simply apply construction adhesive to the foam ridges that contact the mounting surface. Hold ProFoam™ in place until the adhesive cures.



Standard Unit Construction

2' height x 2' width nominal (1' 11-5/8" x 1' 11-5/8") x 2" deep

Polyurethane foam

Product Options*, **

Material Selection

Melamine foam

Unit Size

Units can be made with any height up to 8'

Units can be made with widths of 1', 2', or 4'

Option Sheet

Note:

All dimensions are allowed a tolerance of $\pm 1/16"$ due to material shrinkage and variations.

** Most options merit an increase or, in some cases, a decrease in pricing compared to the standard unit.*

*** Due to material availability, RPG® reserves the right to change options at any time. Therefore, any special options—whether listed or not—must be confirmed prior to submittal of P.O. and acceptance verified by RPG® Diffusor Systems, Inc.*



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Nestable Profiled Acoustical Foam With Variable Depth Air Cavity

CSI Specifications

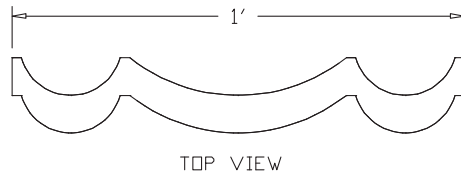
- A** The Nestable Profiled Acoustical Foam With Variable Depth Air Cavity shall be the model ProFoam™ as manufactured by RPG® Diffusor Systems, Inc., Upper Marlboro, MD 20774. Tel: 301-249-0044, Fax: 301-249-3912.
- B** The Nestable Profiled Acoustical Foam With Variable Depth Air Cavity shall be fabricated as specified from either Melaflex™ or Polyflex™.
- C** The Nestable Profiled Acoustical Foam With Variable Depth Air Cavity, when surface mounted, shall create a variable depth air cavity (VDAC™) to allow most of the foam to be spaced away from the boundary where the particle velocity is zero.
- D** The Nestable Profiled Acoustical Foam With Variable Depth Air Cavity shall allow additional layers to be stacked upon previous layers to provide additional absorption efficiency at lower frequencies.
- E** The Nestable Profiled Acoustical Foam With Variable Depth Air Cavity shall contain a plurality of rounded arcs to provide a decorative architectural surface topology.
- F** Absorption Coefficients and Noise Reduction Coefficient for the product shall be measured by an independent, accredited NVLAP facility according to the test methods as defined by ASTM C 423 and ASTM E 795. Random incidence Absorption Coefficients for the product in a Type A mounting shall be as follows:

	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	NRC
2" ProFoam™ (1 Layer)	0.14	0.30	1.08	1.11	0.99	1.01	1.00
3" ProFoam™ (2 Layers)	0.13	0.61	1.19	1.22	1.06	1.09	1.20
4" ProFoam™ (3 Layers)	0.26	1.07	1.21	1.36	1.17	1.14	1.20

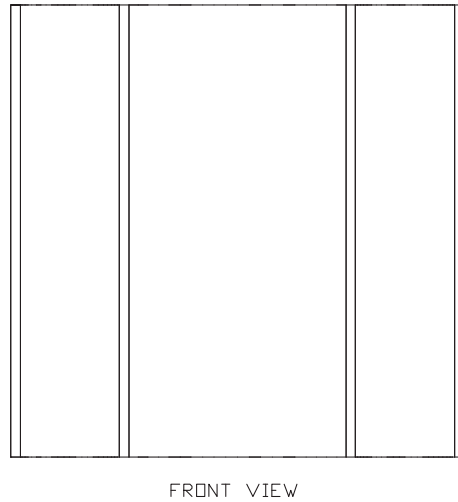
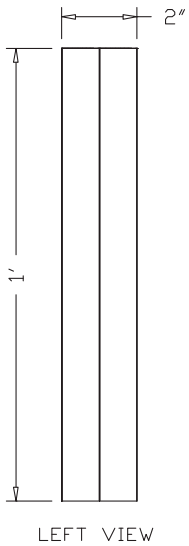
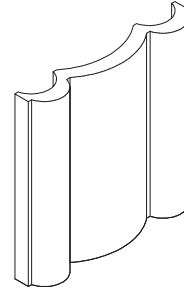
- G** The Melaflex™ Nestable Profiled Acoustical Foam With Variable Depth Air Cavity is fabricated from non-fibrous, fire resistant, open cell, lightweight (0.6lb³) BASF melamine foam. It is in full compliance with all National Life Safety Codes for Class A interior use. Melaflex™ has a flame spread of 10 and a smoke development rating of 50 as per ASTM E-84 testing standards. The Polyflex™ Nestable Profiled Acoustical Foam With Variable Depth Air Cavity is fabricated from a UL94 2lb³ polyester urethane which should only be used in Class B or C spaces.
- H** The Melaflex™ Nestable Profiled Acoustical Foam With Variable Depth Air Cavity shall be supplied in a white, white flec, or gray flec finish as specified. The Polyflex™ Nestable Profiled Acoustical Foam With Variable Depth Air Cavity shall be supplied in a purple, blue, or charcoal gray finish as specified.
- I** The material thickness shall be 1" with a panel thickness of 2". The overall dimensions shall be 12"(H) x 12"(W), 24"(H) x 24"(W), or 48"(H) x 24"(W) as specified.



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1' x 1' Cutsheet



Project:

Specifier:

Drawing Number:

Date:

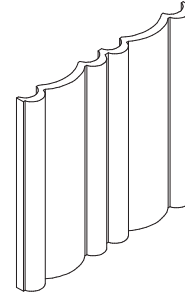
Tolerance: $\pm 1/16"$



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2'x2' Cutsheet



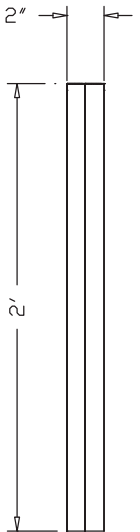
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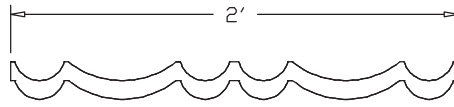
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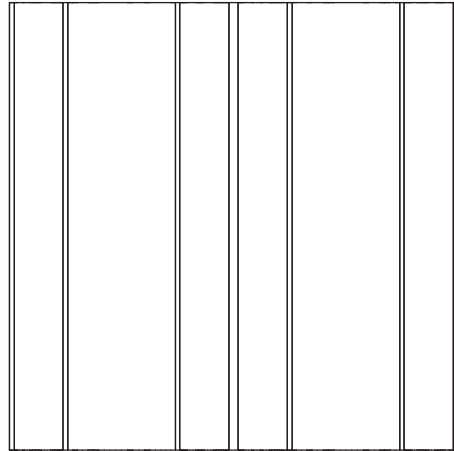
Tolerance: $\pm 1/16"$



LEFT VIEW



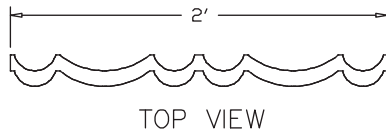
TOP VIEW



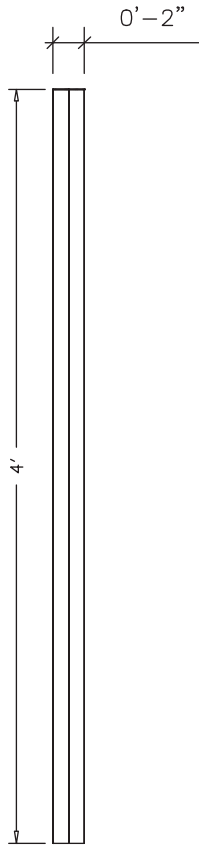
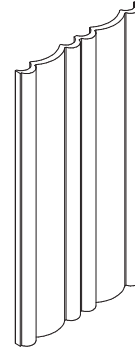
FRONT VIEW



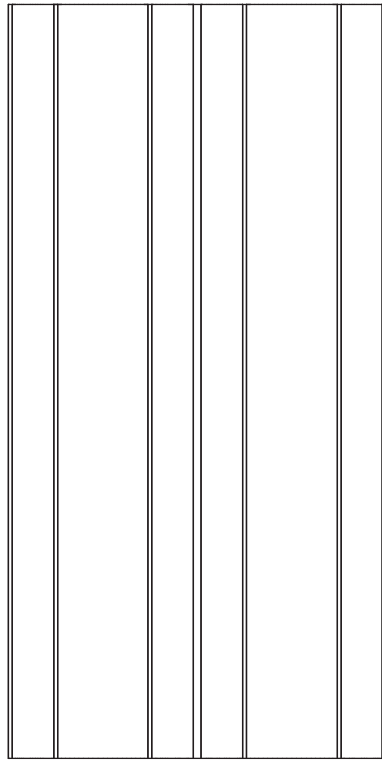
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4' x 2' Cutsheet



LEFT VIEW



FRONT VIEW

Project:

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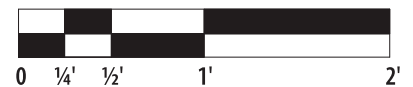
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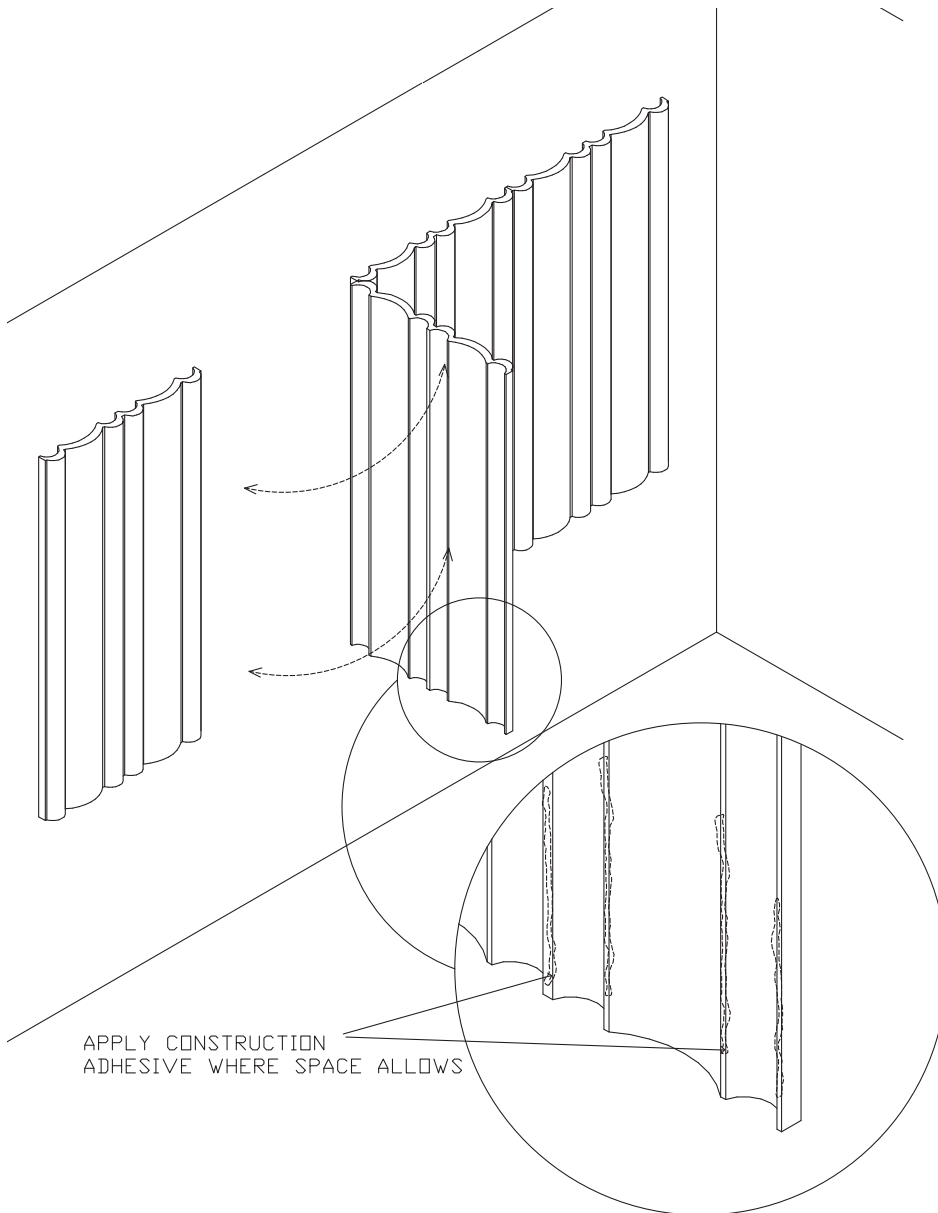
Tolerance: $\pm 1/16"$



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Surface Mount



APPLY CONSTRUCTION
ADHESIVE WHERE SPACE ALLOWS

Project:

Specifier:

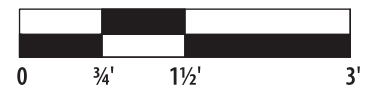
Drawing Number:

Date:

All dimensions should be field verified prior to installation.



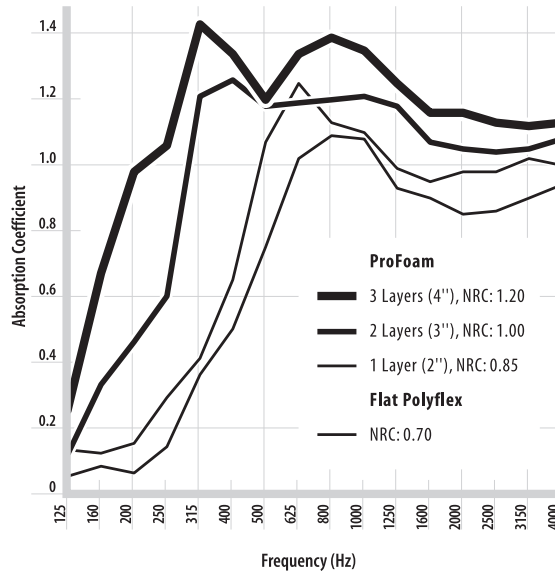
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Absorption Coefficients

Measured at IBM Hudson Valley

Acoustics Lab according to ASTM C423.



Hz	Flat Polyflex NRC: 0.70	2" ProFoam™ 1 Layer	3" ProFoam™ 2 Layers	4" ProFoam™ 3 Layers
125	0.06	0.14	0.13	0.26
160	0.09	0.13	0.34	0.68
200	0.07	0.16	0.47	0.99
250	0.15	0.30	0.61	1.07
315	0.37	0.42	1.22	1.44
400	0.51	0.66	1.27	1.35
500	0.76	1.08	1.19	1.21
625	1.03	1.26	1.20	1.35
800	1.10	1.14	1.21	1.40
1000	1.09	1.11	1.22	1.36
1250	0.94	1.00	1.19	1.26
1600	0.91	0.96	1.08	1.17
2000	0.86	0.99	1.06	1.17
2500	0.87	0.99	1.05	1.14
3150	0.91	1.03	1.06	1.13
4000	0.95	1.01	1.09	1.14



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