Nomex® Honeycomb





Toray Advanced Composites

PRODUCT DATA SHEET

DESCRIPTION

ANA aerospace grade Nomex® honeycomb core is manufactured from Nomex® paper sheets and is coated and bonded together with a phenolic resin.

Designed to offer users and designers high strength-to-weight properties at relatively low cost, Nomex® honeycomb is particularly suitable as a core material for production of sandwich structures requiring significant FST performance and using high performance fiber reinforced composites as the facing material.

FEATURES

- ► High strength-to-weight ratio
- ► Easily formed to shape
- ► Excellent fire-resistant and self-extinguishing properties to FAR 25.583
- ► Corrosion resistance against water, oil, and fuel
- ▶ High temperature capabilities; service temperature up to 180°C
- ► Good dielectric properties
- ► Cut to customer specifications

TYPICAL APPLICATIONS

- ► Sandwich panel applications
- ➤ Aircraft flooring—varying densities depending on level of duty
- ► Aircraft interiors—ranging from sidewalls, galleys, and ceilings, including commercial aerospace, business, and VIP interiors
- ► Cargo lining
- ► Helicopter rotor blades
- ► Aircraft leading and trailing edges
- ► Fuselage components

PRODUCT RANGE

Standard products:

The following products are usually available as ex-stock items. Additional grades can be sourced upon request, subject to minimum order quantities and extended lead times.

- ► ANA-3.2-29
- ► ANA-3.2-48
- ► ANA-3.2-64
- ► ANA-4.8-48(OX)

For our range of commercial grade Nomex® honeycomb (ANC), please refer to our Nomex® Honeycomb—Commercial Grade product data sheet.

PRODUCT DESIGNATION

e.g.	ANA (a)	3.2 (b)		48 (c)	(d)		
a. ANA			Nomex® aerospace honeycomb				
b. 3.2			Cell size in millimeters				
c. 29			Density (kg/m³)				
d. (OX)			Overexpanded				

STANDARD DIMENSIONS AND TOLERANCES

Nominal sheet length (W) = 2500 ± 75 mm Nominal sheet width (L) = 1250 ± 75 mm Sheet thickness as requested from 1.5 mm to 100 mm \pm 0.125 mm Density as nominal \pm 10% (except ANA-3.2-29 \pm 13%)

Other sheet sizes may be available upon request.



Contact us for more information:

Nomex® Honeycomb





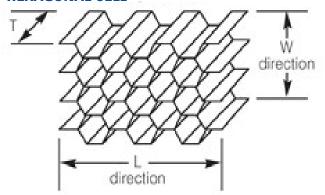
Toray Advanced Composites

PRODUCT DATA SHEET

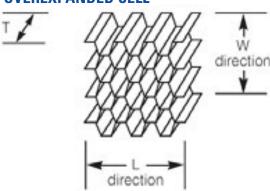
MECHANICAL PROPERTIES

Property	Stabilized C	ompression	Plate Shear			
	Strength (MPa)	Modulus (MPa)	Strength "L Direction" (MPa)	Modulus "L Direction" (MPa)	Strength "W Direction" (MPa)	Modulus "W Direction" (MPa)
ANA-3.2-29	0.90	60	0.5	25	0.35	17
ANA-3.2-48	2.4	138	1.25	40	0.73	25
ANA-3.2-64	3.9	190	2.0	63	1.0	35
ANA-4.8-48(0X)	2.9	120	0.8	20	0.85	35

HEXAGONAL CELL



OVEREXPANDED CELL



© 2019–2020 Toray Advanced Composites. All data given is based on representative samples of the materials in question. Since the method and circumstances under which these materials are processed and tested are key to their performance, and Toray Advanced Composites has no assurance of how its customers will use the material, the corporation cannot guarantee these properties. Toray®, (Toray) AmberTool®, (Toray) Cetex®, (Toray) MicroPly™, and all other related characters, logos, and trade names are claims and/or registered trademarks of Toray Industries Inc. and/or its subsidiary companies in one or more countries. Use of trademarks, trade names, and other IP rights of Toray Industries Inc. without prior written approval by such is strictly prohibited. Nomex® is a registered trademark of E.I du Pont de Nemours and Company.



Toray Advanced Composites