

PRODUCT DATA SHEET

DESCRIPTION

Toray's Nomex® aerospace (ANA) grade 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, please refer to Toray's 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/m ³)			
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 ± 0.125 mm

Density as nominal ± 10% (except ANA-3.2-29 ± 13%)

Other sheet sizes may be available upon request.



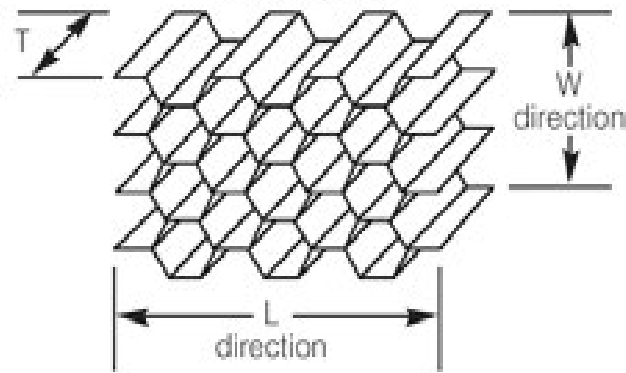
Contact us for more information:
Europe/Middle East/Africa
e explore@toraytac-europe.com
t +44 (0)1773 530899

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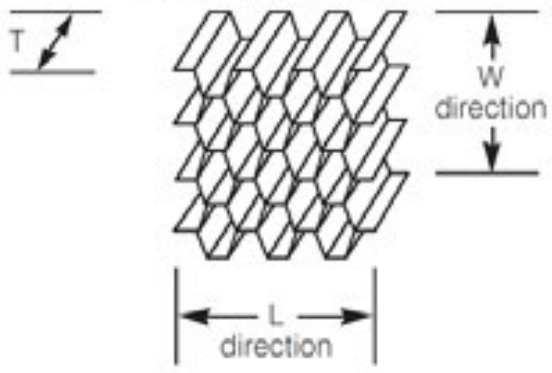
MECHANICAL PROPERTIES

Property	Stabilized Compression		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(OX)	2.9	120	0.8	20	0.85	35

HEXAGONAL CELL



OVEREXPANDED CELL



T = Thickness or cell depth L = Ribbon direction W = Direction perpendicular to the ribbon direction

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