

HONEYCOMB FLEXCORE NOMEX®

Product details

Description

Nomex® is an aramid polymer with molecular structure particularly stable. The paper Nomex® is obtained from different forms of aramid polymer. Non metallic honeycombs are manufactured from high temperature resistant aramid paper formed into a honeycomb structure and coated with a phenolic resin.

The combination of aramid paper and phenolic resin give aero grade of honeycomb in nomex with superior strength, toughness and chemical resistance. The Nomex® has a useful life of over 20,000 hours at 220 °. It has unique cell configurations that eliminate anticlastic behaviour and permit small radii of curvature without deformation of cell walls or loss of mechanical properties. Thickness on customer's request.

Features

- Outstanding resistance to corrosive attack by chemicals
- High mechanical strength at low densities
- Fire retardant and self extinguishing
- Excellent resistance to impact damage and moisture
- Low smoke and toxic gas emission
- Highly resistant to fungal growth
- Good dielectric properties, transparent radio and radar waves
- Formable material to 360 °

Application

It is used in various sectors that require the curvature

Dimensions

The standard dimensions are 1066x1828mm. We can also make different sizes on request. General tolerances -50 / + 100mm

Thickness chosen by the customer: minimum 1.5 mm up to 350 mm depending on the type of cell.

Tolerance on the standard +/- 0.12 mm thick (+/- 0.05mm with extracost).

Designation

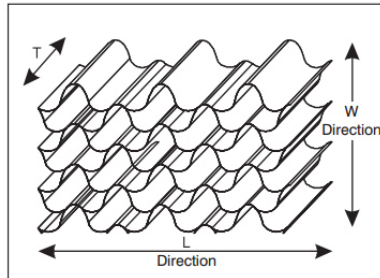
The complete description of the honeycomb provides:

Alloy: HRH10 aeronautic grade

Density: weight of the material expressed in pounds / cubic feet or kg / m3

Cell: the number of cells in 305mm (or 12 ") as F35 or F50

Tolerances +/- 10%



Configuration: F flexcore®

Mechanical properties

HRH-10 Fiber/Phenolic Resin Honeycomb FLEXCORE® NOMEX®

Honeycomb Designation Material – CellSize – Density	Compressive					Plate Shear					
	Bare		Stabilized			L Direction			W Direction		
	Strength psi		Strength psi		Modulus ksi	Strength psi		Modulus ksi	Strength psi		Modulus ksi
Flex-Core											
HRH-10/F35 – 2.5	200	150	235	175	12	110	90	4.0	65	50	2.5
HRH-10/F35 – 3.5	410	320	430	330	24	220	170	6.0	120	90	3.7
HRH-10/F35 – 4.5	580	440	620	480	33	300	230	9.0	190	150	4.3
HRH-10/F50 – 3.5	380	300	400	310	24	175	130	5.5	100	75	3.6
HRH-10/F50 – 4.5	565	450	585	470	33	330	250	9.5	175	140	4.7
HRH-10/F50 – 5.0	670	520	690	540	37	380	300	10.0	215	170	5.2
HRH-10/F50 – 5.5	800	620	850	660	42	400	320	10.5	230	180	5.7

The values are indicative and do not represent constraint - Last update 05-2016