



# PP Honeycomb

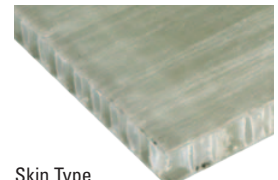
## Light, Strong, Tough, Cost-Effective

Plascore PP Honeycomb is a tough, lightweight and ductile polypropylene material that provides efficient and optimum mechanical performance in composite sandwich structures. PP Honeycomb is an excellent alternative to traditional core materials such as plywood, balsa and foam used in manufacturing consumer and industrial products.

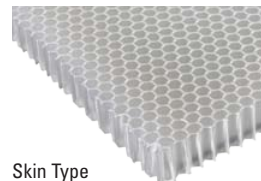
Available in a wide range of sheet sizes and facings, PP Honeycomb is engineered for ease of use in many mainstream manufacturing processes, is readily available and can be modified to meet specific requirements for strength and stiffness. Plascore PP Honeycomb is used in many composite sandwich structures that require core shear, compression and adhesion performance. The unique cell structure, the use of a high impact copolymer PP and unique material processing contribute to its attractive performance levels.



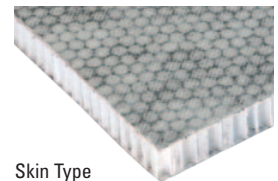
Skin Type  
-10 Standard Non Woven  
with Film Barrier



Skin Type  
-30 Glass Reinforced PP



Skin Type  
-00 Open Cell



Skin Type  
-20 Infusion Grade

## Features

- *Multi-axial structure provides isotropic performance*
- *Engineered raw materials for higher performance*
- *Uniform and uninterrupted cell structure*
- *Non woven surfacing is compatible with most resin systems*
- *Minimizes laminating resin for full wet out*
- *Continues to absorb energy, even after ultimate yield*

## A World of Applications

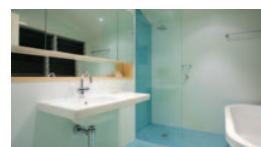
**Marine & Recreation** – Easy to use in open or closed molding processes, PP Honeycomb offers a high strength-to-weight ratio that satisfies the demands of many applications. Boat decks, partitions, stringers, hatches and doors are just a few examples.

**Transportation** – PP Honeycomb when used in a thermoset or thermoplastic sandwich structure provides an economical, lightweight solution for doors, sidewalls, bulkheads and shelving.

**Building Products** – Providing structural support in a low cost, easy to use product is essential for many thermoset building product applications such as bath and shower, sub floors, walls and more.

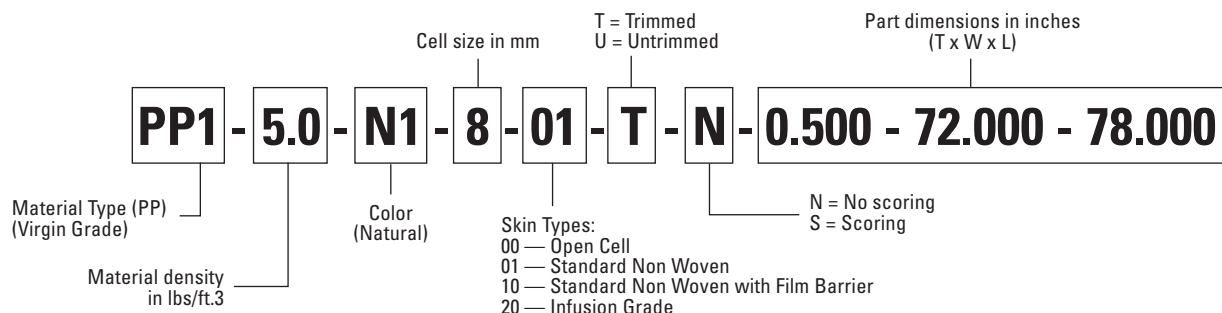
**Commercial** – PP Honeycomb mechanical properties, moisture, chemical and impact resistance as well as vibration dampening offer improved performance benefit for indoor and outdoor industrial doors, platforms and covers.

**Automotive** – Load floors, package trays, spare tire covers, bolsters and pillars are just a few applications that utilize Plascore PP Honeycomb performance and processing features.



# PP polypropylene honeycomb is specified as follows:

Material - Cell Size - Color - Thickness



## PP Honeycomb Core Mechanical Properties

CORE	CELL SIZE		DENSITY				FLATWISE TENSILE <sup>1</sup>		BARE COMPRESSION <sup>2</sup>						PLATE SHEAR <sup>3</sup>									
			TYPICAL		MINIMUM				STRENGTH		STRENGTH			MODULUS			STRENGTH			MODULUS				
	(in)	(mm)	lb/ft <sup>3</sup>	kg/m <sup>3</sup>	lb/ft <sup>3</sup>	kg/m <sup>3</sup>	psi	MPa	psi	MPa	psi	MPa	ksi	MPa	ksi	MPa	psi	MPa	psi	MPa	ksi	MPa	ksi	MPa
PP1-5.0-N1-8	0.315	8	5	80.0	4.75	75.0	130	0.89	275	1.89	255	1.55	11.5	79.2	9.5	65.4	85	0.58	75	0.52	2.2	15.2	1.7	11.7
PP1-4.0-N1-10	0.395	10	4	64.0	3.8	60.0	120	0.83	180	1.24	140	0.96	10.5	72.3	8.5	58.5	60	0.41	55	0.38	2.0	13.8	1.5	10.3

The data provided is based on the testing of -01 (veil only) version of each core type.

<sup>1</sup> Flatwise Tensile  
 Tested per ASTM C 297

<sup>2</sup> Bare Compression  
 Tested per ASTM C 365

<sup>3</sup> Plate Shear  
 Tested per ASTM C 273

### Availability:

**Densities:** 3.5 to 20.0 pcf  
**Thickness:** ¼" - 6" Laminated;  
 up to 24" open cell  
**Length:** Up to 50'  
**Width:** 72" max.  
**Tolerances:** Length: ± .125"  
 Width: ± .125"  
 Thickness: ± .02"  
 Open Cell: ± .03"  
 w/reinforced PP facings  
 Density: ± 10%

### Storage:

Store material flat and horizontal.  
 Store material in a dry and covered area, protected from UV sunlight and extreme temperatures.  
 Material may need to be dried prior to use if surface moisture is present.

### ISO-9001 Quality

Plascore manufacturing standards meet or exceed North American and international industry requirements. Plascore, Inc. is ISO-9001 registered, employing Lean Principles throughout design, manufacturing and administration. In addition to our proprietary honeycomb manufacturing process, our value-added capabilities include adhesive development, CNC machining, powder coating, welding, thermoset and thermo-plastic laminating and assembly. This extensive capability, along with Plascore JIT, Kanban and sequencing programs, allows us to maintain rigid quality standards on all components, control project scheduling and delivery in the manner best suited to the client's specific needs.



Plascore, Inc., employs a quality management system that is AS/EN/JISQ 9100 and ISO 9001:2008 certified.

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