CORMASTER **C2**

Maximum performance for industrial applications with CORMASTER® honeycomb by SCHÜTZ.

CORMASTER
ADVANCED COMPOSITES

ADVANTAGES

- Excellent cost-benefit ratio
- Outstanding mechanical properties in relation to the weight
- High dimensional stability in heat and moisture
- High temperature resistance, service temperatures up to 180° C
- Water and corrosion resistant
- Formability
- Good thermal and electrical insulation properties
- Good fire resistance, self-extinguishing
- Excellent compatibility with most adhesives, resins and prepregs

DELIVERY TIME /AVAILABILITY

- Many CORMASTER® honeycomb types are available for immediate delivery.
- Standard honeycomb sheet dimensions: 1250 mm x 2500 mm from 1 mm to 860 mm thick
- Customised sizes on request.

SPECIFICATIONS

- CORMASTER® material specification CMS084 for applications in ship and yacht building
- CORMASTER® material specification CMS089 for industrial and sports applications

MATERIAL

- Non-metallic structural materials made from meta-aramid paper
- Bonded together and coated with heat-resistant phenolic resin

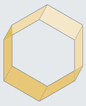
APPLICATIONS

- Used in many important structural sandwich applications in industry and sport.
  Examples include
  - High-performance sailing yachts
  - Sports boats
  - Vehicle construction
  - Railcars
  - Sports equipment

CORMASTER **C2**

Technical data

CORMASTER TYPE		Compressive strength in N/mm²		Shear strength in L in N/mm²		Shear modulus in L in N/mm²		Shear strength in W in N/mm²		Shear modulus in W in N/mm²	
		μ	μ-σ	μ	μ-σ	μ	μ-σ	μ	μ-σ	μ	μ-σ
HEXAGONAL CELL CONFIGURATION											
C2 - 3.2	**- 29** [1]	0.54	0.49	0.56	0.52	25.00	22.00	0.31	0.30	13.00	11.00
	- 48 [2]	2.11	1.90	1.21	1.15	43.00	40.00	0.62	0.59	23.00	21.00
	- 64 [2]	3.89	3.00	1.8	1.67	61.00	56.00	1.00	0.90	37.00	34.00
	- 70 [2]	4.86	3.97	1.83	1.77	63.00	59.00	1.05	0.94	42.00	39.00
	- 72 [2]	4.86	3.97	1.83	1.77	63.00	59.00	1.05	0.94	42.00	39.00
	- 75 [2]	4.86	3.97	1.83	1.77	63.00	59.00	1.05	0.94	42.00	39.00
	- 80 [2]	5.58	4.87	2.46	2.06	85.00	76.00	1.34	1.23	47.00	42.00
	- 90 [2]	7.06	6.21	2.45	2.25	82.00	77.00	1.49	1.41	55.00	52.00
	- 96 [2]	7.77	6.93	2.62	2.41	87.00	82.00	1.61	1.53	60.00	56.00
	- 123 [2]	11.90	11.01	3.16	2.79	105.00	98.00	2.18	2.10	83.00	78.00
	- 128 [2]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 139 [2]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 144 [3]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
C2 - 4.8	**- 32** [2]	0.90	0.77	0.62	0.60	38.00	35.00	0.34	0.32	16.00	14.00
	- 48 [2]	2.11	1.81	1.11	1.04	41.00	39.00	0.62	0.58	23.00	22.00
	- 64 [3]	3.67	3.32	1.93	1.76	59.00	54.00	1.10	1.01	39.00	37.00
	- 72 [3]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 80 [3]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 96 [3]	7.11	6.21	2.34	1.95	113.00	100.00	1.63	1.39	62.00	68.00
C2 - 6.4	**- 24** [2]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 32 [2]	0.85	0.80	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 50 [2]	2.11	1.89	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 64 [3]	3.45	3.07	1.92	1.82	56.00	51.00	1.38	1.26	45.00	41.00
C2 - 9.6	**- 32** [2]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 48 [2]	1.98	1.73	1.23	1.09	40.00	38.00	0.81	0.75	29.00	27.00
	- 64 [3]	3.28	2.85	1.98	1.91	62.00	57.00	1.38	1.28	43.00	40.00



Honeycomb density: the permissible tolerance is +13% and -10% of the nominal density.

Exceptions from this are the grades C2 - 6.4 - 24; C2 - 3.2 - 29; C2 - 9.6 - 29 which are tolerated at +/- 15% of the density.

The technical data listed are statistically determined and are not guaranteed minimum values.

Specifications with guaranteed mechanical values can be provided by SCHÜTZ on request.

μ = mean value at nominal density

μ-σ = mean value - standard deviation at nominal density

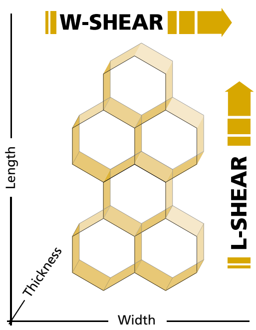
[1] = 1.5mil
[2] = 2mil
[3] = 3mil
TBD = On request

CORMASTER
ADVANCED COMPOSITES

To prepare an offer, we require the CORMASTER® type with cell width and density together with the dimensions (L, W, thickness) of the required product.
Please note the different shear properties in L and W direction.
If you have any further questions, please do not hesitate to contact us.

C2 - 4.8	-48

Meta-aramid paper coated with phenolic resin | Cell width in mm | Density in kg/m³



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CORMASTER **C2**

Technical data

CORMASTER TYPE		Compressive strength in N/mm²		Shear strength in L in N/mm²		Shear modulus in L in N/mm²		Shear strength in W in N/mm²		Shear modulus in W in N/mm²	
		μ	μ-σ	μ	μ-σ	μ	μ-σ	μ	μ-σ	μ	μ-σ
OVEREXPANDED CELL CONFIGURATION											
C2 - 4.8	**- 29 OX[2]**	0.56	0.52	0.53	0.48	11.00	9.00	0.44	0.37	22.00	16.00
	- 32 OX[2]	0.72	0.67	0.57	0.52	12.00	10.00	0.53	0.45	26.00	20.00
	- 48 OX[2]	1.81	1.44	0.77	0.72	18.00	17.00	0.98	0.91	46.00	40.00
	- 64 OX[2]	2.89	2.52	0.97	0.93	24.00	23.00	1.43	1.36	67.00	61.00
	- 72 OX[2]	3.42	3.05	1.08	1.03	27.00	26.00	1.65	1.58	77.00	71.00
	- 80 OX[2]	3.96	3.59	1.18	1.13	30.00	29.00	1.88	1.81	87.00	81.00
	- 96 OX[2]	5.04	4.67	1.38	1.33	36.00	35.00	2.33	2.26	107.00	101.00
C2 - 6.4	**- 32 OX[2]**	0.73	0.71	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 48 OX[2]	1.70	1.57	0.65	0.62	16.00	15.00	0.95	0.90	45.00	41.00
	- 56 OX[2]	2.10	1.92	1.12	1.05	26.00	23.00	1.30	1.24	56.00	52.00
PARTIALLY OVEREXPANDED CELL CONFIGURATION											
C2 - 4.8	**- 48 OV[2]**	2.03	1.87	0.99	0.94	31.00	29.00	0.92	0.84	40.00	37.00
	- 64 OV[2]	4.40	4.30	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 64 OV[3]	3.57	2.61	1.72	1.54	52.00	45.00	1.41	1.15	49.00	42.00
	- 72 OV[2]	4.54	4.43	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 72 OV[3]	4.58	3.62	1.89	1.71	59.00	51.00	1.65	1.39	56.00	49.00
	- 80 OV[2]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	- 80 OV[3]	5.58	4.63	2.06	1.88	65.00	58.00	1.89	1.63	63.00	55.00
	- 96 OV[3]	7.49	6.84	2.29	2.20	75.00	70.00	2.24	2.11	79.00	74.00

Honeycomb density: the permissible tolerance is +13% and -10% of the nominal density.

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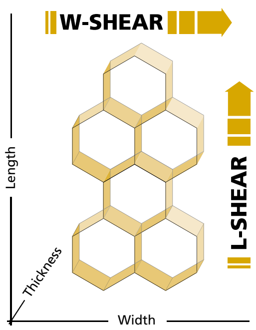
C2 - 4.8	-48	OX
Meta-aramid paper coated with phenolic resin / Cell width in mm	Density in kg/m³	OX: Overexpanded cells OV: Partially overexpanded cells



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