VOLTIS® LC 205 EPP65N

VOLTIS® LC 205 EPP65N/T

VOLTIS® LC 205 EPP65N/PP

Composition

LC 205 EPP65N (/T, /PP) is a rubber clad phenolic resin paper laminate (also with a teflon or polypropylene coating). The denomination 'LC' indicates an extremely low chlorine-content. The paperlaminate is in accordance with the following standards:

IEC 60893	:	PF-CP 203
DIN 7735	:	Hp 2061.6
NEMA LI1	:	XX
JIS K 6912	:	PL-PEM-P

VOLTIS® LC 205 EPP65N is composed of a phenolic resin paper laminate with a soft EPDM rubber cladding.
VOLTIS® LC 205 EPP65N/T has an additional teflon coating.
VOLTIS® LC 205 EPP65N/PP has an additional polypropylene coating on the paper side.

Application

The high resistance of the components against temperature and solvents makes these products an excellent choice for use as end caps in electrolytic capacitors. The specially designed components fulfill the needs regarding corrosion and ageing, particular for glycol based electrolytes.

The additional polypropylene coating increases the safety against corrosion.

For extreme applications (2000 hr / 135°C) the teflon coated type is recommended.

Punching temperature

100 to 150°C

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Availability

Standard: 1.5 mm paper laminate / 1.0 mm rubber
2.0 mm paper laminate / 1.0 mm rubber
Other dimensions on request.
Minimum thickness of rubber: 0.8 mm
Thickness of the teflon coating: 0.1 mm
Thickness of the PP-coating: 0.04 mm

Tolerances: ± 0.2 mm for composite laminate and ± 0.1 mm for rubber

Sheet size: 1030 x 1030 mm (+30 / -0 mm)

Technical Data (mechical values are the mean of both directions)

1. Paper Laminate

Properties	**Testmethod**	**Unit**	**Value**
Tensile strength (23°C)	ISO 527	MPa	170
Flexural strength 23°C / 85°C / 125°C	ISO 178	MPa	190 / 150 / 110
Modulus of elasticity 23°C / 85°C / 125°C	ISO 178	MPa	10000 / 9000 / 7000
Insulation resistance after immersion in water	IEC 167	Ohm	≥ 10^8
Water absorption (1mm thick)	ISO 62 / 1	mg	≤ 120
Resistance to solvents			
- Butyrolactone / 168 h / 85°C			
Flexural strength (23°C)		MPa	100
Modulus of elasticity (23°C)		MPa	5000
- Glycol / 168 h / 85°C			
Flexural strength (23°C)		MPa	130
Modulus of elasticity (23°C)		MPa	6000

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2. Rubber (Type EPDM)

Properties	Testmethod	Unit	Value
Shore hardness A	DIN 53505		65 ± 5
Tensile strength	DIN 53504	MPa	> 10
Elongation at break	DIN 53504	%	> 200
Compression set (168 h / 85°C / 25 %)	DIN 53517	%	< 25
Insulation resistance	IEC 93	Ohm	≥ 10^{10}
Shore hardness A after ageing (1000 h / 125°C)	DIN 53505		65 (+10 / -3)
Resistance to solvents (1000 h / 125°C) - Ethylene glycol Shore hardness A Weight increase - Dimethylformamid Shore hardness A Weigth increase		 % % 	 65 (+5 / -10) <10 65 (+5 / -10) < 5

3. Composite

Properties	Testmethod	Unit	Value
Insulation resistance after immersion in water	IEC 167	Ohm	≥ 10^{8}
Peel strength - as delivered - ageing in air (168 h / 100°C) - ageing in DMF (168 H / 100°C)	IPN 115	 N / mm N / mm N / mm	 > 1.5 > 1.0 > 1.0
Cl-content	IPN 113	ppm	≤ 5

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