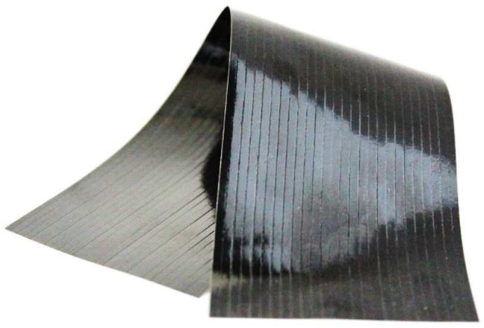
VITROLAM®

Thin and flexible shielding material designed for wireless power transfer applications (e.g. smart phones, tablets, …)



Patent pending.

Composition:

Layered composite foil with VITROPERM®

Application Requirement:

☑ Power Transfer Efficiency (@ 110 …205 kHz): high efficiency of typ. 70% and more
☑ Magnetic Shielding: protection of electronic components & battery from inductive heating

Features:

- 2 or 4 layers of nanocrystalline VITROPERM® 800 R
- Thin: 0,10mm (2 layers) to 0,18 mm (4 layers) incl. PET foils and adhesives
- Flexible and easy to use ribbon sheet with black PET protection tape
- Excellent power transfer efficiency
- Outstanding shielding performance → lowest temperature rise
- High temperature stability → no performance degradation due to temperature rise

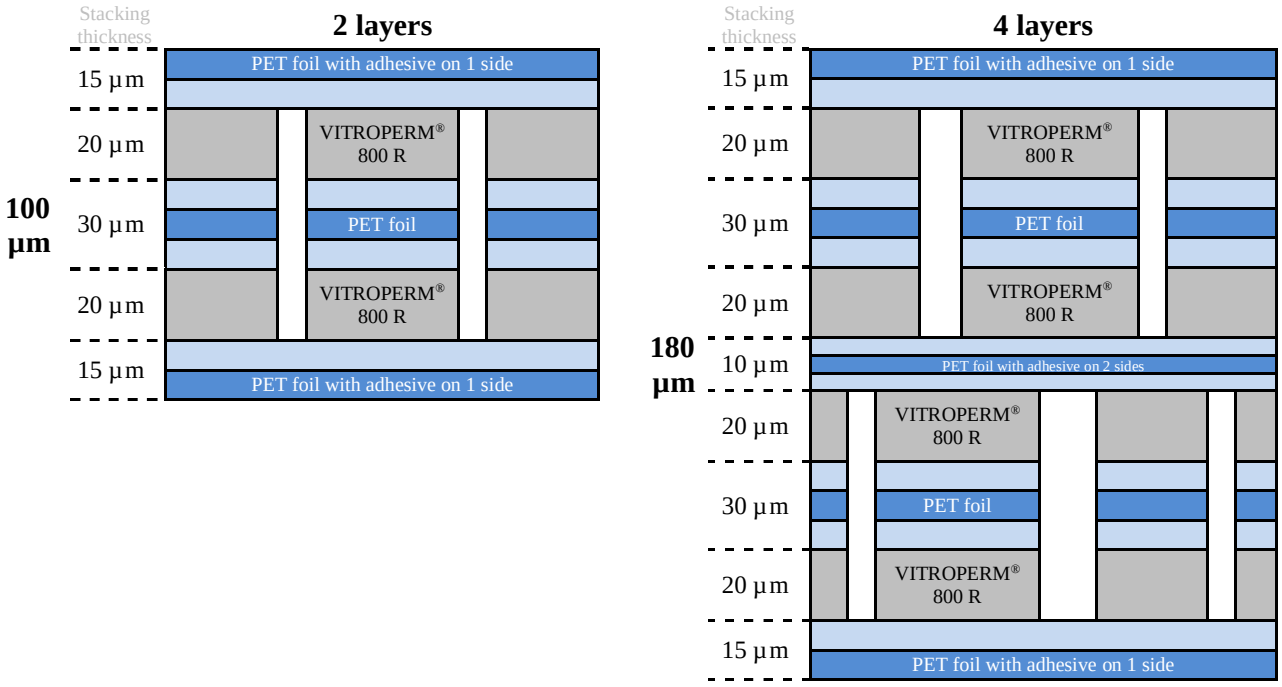
Magnetic properties of VITROPERM® 800 R

Property	Value	Unit
Saturation polarisation (20°C)	1,23	T
Permeability (@ 100 kHz, 3 mA/cm)	min. 12.000	
Static coercivity	typ. 1,5	A/m
Curie temperature	600	°C

Physical properties of VITROPERM® 800 R

Property	Value	Unit
Thickness (CAT) per layer	0,018	mm
Electrical conductivity @ 100 kHz	0,35	10^6 $(\Omega\ m)^{-1}$
Heat conductivity:	approx. 12	W/(K m)

Schematic drawing of VITROLAM®



Properties of VITROLAM®

	2- layer type	4-layer type
VAC Material number:	96990755	96990756
Packaging Unit:	50 sheets	50 sheets
Compound thickness:	0,10 mm	0,18 mm
Width:	55 mm	56 mm
Length:	200 mm	200 mm

Temperature resistance of VITROLAM®

	Value	Unit
Short term temperature resistance:	120	°C
Long term temperature resistance:	55	°C

Preferred storage condition of VITROLAM®:

Humidity typically 50%, temperature < 25°C