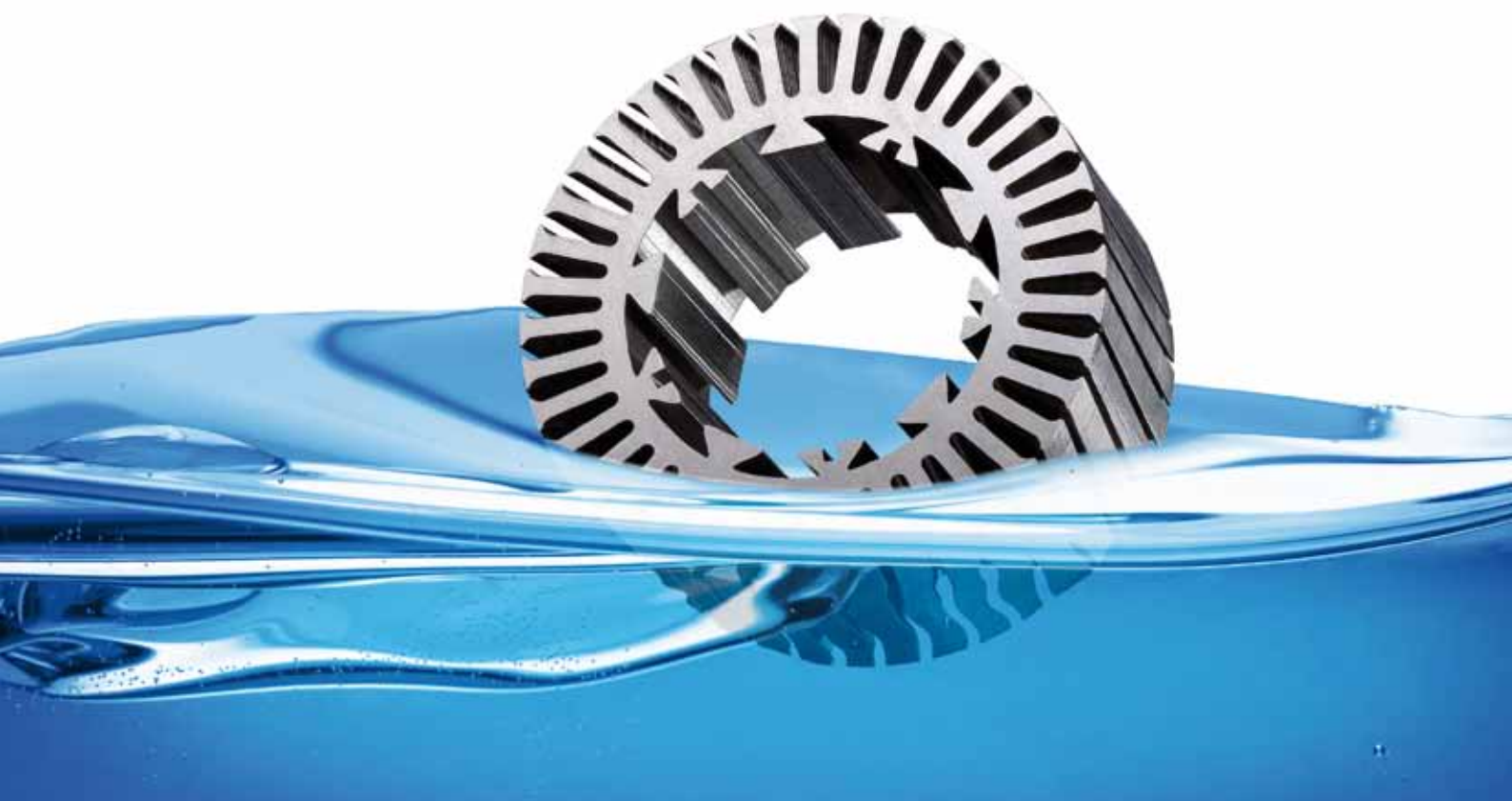




Energy Solutions Electrical Steel Coatings

Voltatex[®] Product Overview



Energy Solutions

excellence in electrical insulation



Energy Solutions Electrical Steel Coatings

Voltatex® Product Overview

Electrical Steel Coatings - Voltatex® - Wet Varnish Properties

Product	Thermal Class DIN EN 60085	Chemical Base	Dilutant	VOC	Flow Time DIN 53211	Solid Content DIN EN ISO 3251	Density DIN EN ISO 2811	pH-Value DIN ISO 976	Storage Stability
				[%]	4mm cup, 20 °C [sec]	2h, 110 °C, 1g [%]	20 °C [g/cm³]	20 °C	+5 °C - +30 °C [month]
C3									
Voltatex® 1153E	180 (H)	Alkyd-Melamine	Water	11.2	100 - 130	44 - 49	1.05 - 1.10	7.5 - 9.5	6
C3 NEW GENERATION									
Voltatex® 1230	180 (H)	Alkyd-Melamine	Water	10.3	100 - 130	40 - 47	1.04 - 1.09	7.5 - 9.5	6
C3 - Self Bonding									
Voltatex® 1175	180 (H)	Epoxy (solvent based)	Voltatex® 5050	55.4	210 - 260	44 - 48	1.03 - 1.08	n.a.	12
Voltatex® 1175W	180 (H)	Epoxy	Water	9.4	60 - 90	47 - 53	1.05 - 1.15	7.5 - 9.5	4
C3 - Self Bonding NEW GENERATION									
Voltatex® 1175WL	180 (H)	Epoxy	Water	10.4	35 - 55	38 - 48	1.05 - 1.15	7.5 - 9.5	4
Voltatex® 1175WH	180 (H)	Epoxy	Water	10.9	80 - 120	40 - 50	1.05 - 1.15	7.5 - 9.5	4
C5									
Voltatex® 1120	180 (H)	Alkyd-Melamine	Water	4.8	40 - 80	38 - 44	1.10 - 1.20	7.5 - 9.5	6
Voltatex® 1120-2	180 (H)	Alkyd-Melamine	Water	7.7	30 - 50	37 - 47	1.10 - 1.20	7.0 - 9.0	6
Voltatex® 1250	180 (H)	Polyurethane-Melamine	Water	1	105 - 175	50 - 60	1.15 - 1.30	7.5 - 9.5	8
C5 NEW GENERATION									
Voltatex® 1120V	220 (R)	Polyurethane-Melamine	Water	7.6	105 - 175	38 - 48	1.10 - 1.30	7.5 - 9.5	6
Voltatex® 1250V	220 (R)	Polyurethane-Melamine	Water	7.6	120 - 175	42 - 48	1.10 - 1.30	7.5 - 9.5	8
Voltatex® 1250V Fast	180 (H)	Polyurethane-Melamine	Water	10,9	70 - 80	40 - 45	1.10 - 1.30	7.5 - 9.5	4
Voltatex® 1250C	180 (H)	Polyurethane-Melamine	Water	11.5	120 - 175	47 - 53	1.10 - 1.30	7.5 - 9.5	8
C6									
Voltatex® 1151A	180 (H)	Alkyd-Melamine	Water	5	110 - 150	70 - 75	1.70 - 1.90	7.5 - 9.5	12
Voltatex® 1151E	180 (H)	Alkyd-Melamine	Water	5.2	110 - 150	73 - 78	1.70 - 1.90	7.5 - 9.5	9
Voltatex® 1151E-1	180 (H)	Alkyd-Melamine	Water	8.1	95 - 125	70 - 77	1.70 - 1.90	8.0 - 9.5	9
Voltatex® 1151S	180 (H)	Alkyd-Melamine	Water	5.8	110 - 150	70 - 75	1.70 - 1.90	7.5 - 9.5	9
C6 NEW GENERATION									
Voltatex® 1262	180 (H)	Polyurethane	Water	15.3	80 - 150	55 - 60	1.45 - 1.65	7.5 - 8.5	6
Voltatex® 1262A	180 (H)	Polyurethane	Water	8.7	120 - 170	55 - 65	1.45 - 1.70	7.5 - 8.5	6
GRAIN ORIENTED									
Voltatex® 1240A+B	n.a.	SiO ₂ / Phosphates	Water	0.0	8 - 14	29 - 33	1.15 - 1.30	0.5 - 2.0	1240A: 12 1240B: 12

Electrical Steel Coatings - Voltatex® - Application Properties

Stand 05/2018

Volatex®	Film Thickness Range	Curing Temperature Range (PMT to reach)	Coating Productiveness (theoretical)	Density of the dry film (theoretical)
	[µm]	[°C]	[m ² / kg / µm]	[g / cm ³]
C3				
1153E	0.5 - 6	220 - 260	420	1,15
C3 NEW GENERATION				
1230	0.5 - 6	220 - 260	390	1.15
C3 - Self Bonding				
1175	0.5 - 10	220 - 240	370	1.19
1175W : 1075K (9:1)	0.5 - 7	240 - 260	440	1.20
C3 - Self Bonding NEW GENERATION				
1175WL	0.5 - 7	230 - 260	370	1.17
1175WH	0.5 - 7	220 - 240	395	1.17
C5				
1120	0.5 - 3	245 - 255	300	1.38
1120-2	0.5 - 3	245 - 255	340	1.33
1250	0.5 - 5	250 - 290	370	1.54
C5 NEW GENERATION				
1120V	0.5 - 5	210 - 290	350	1.45
1250V	0.5 - 5	210 - 290	350	1.44
1250V Fast	0.5 - 5	150 - 260	330	1.46
1250C	0.5 - 5	210 - 290	370	1.43
C6				
1151A	2 - 10	200 - 240	250	3.04
1151E	2 - 10	200 - 240	300	2.58
1151E-1	2 - 10	200 - 240	310	2.50
1151S	2 - 10	200 - 240	280	2.62
C6 NEW GENERATION				
1262	3,5 - 10	240 - 300	250	2.35
1262A	3,5 - 10	240 - 300	255	2.36
GRAIN ORIENTED				
1240A+B	0.2 - 4.0	650 - 850°C for 30 sec	140	2,45

Electrical Steel Coatings - Voltatex® - Dry Film Properties

Voltatex®	Humidity Test DIN EN ISO 6270-2 Degree of Rusting DIN EN ISO 4628-3	Salt-Spray Test DIN EN ISO 9227 Degree of Rusting DIN EN ISO 4628-3	Overcoat-ability with all Voltatex® ESC	Adhesion Cross Cut Test DIN EN ISO 2409	Pencil Hardness DIN EN 13523-4	Flexibility Cylindrical Mandrel DIN EN ISO 1519, Type 2	Surface Insulation Resistance ASTM A 717-06	TIG-Welding SEP 1210	Short Term Temp. Resistance DIN IEC 60404-12
	40 °C / 100% Humidity						Ohm cm ² / Lamella		
C3									
1153E	24h / Ri0	5h / Ri0	✓	Gt0B	9H	5	3 / >50	n.a.	n.a.
C3 NEW GENERATION									
1230	24h / Ri0	5h / Ri0	✓	Gt0B	9H	5	3 / >50	n.a.	n.a.
C3 - Self Bonding									
1175	24h / Ri0	5h / Ri0	n.a.	Gt0B	9H	5	5 / >500	n.a.	n.a.
1175W : 1075K (9:1)	24h / Ri0	5h / Ri0	n.a.	Gt0B	9H	5	5 / >500	n.a.	n.a.
C3 - Self Bonding NEW GENERATION									
1175WL	24h / Ri0	5h / Ri0	n.a.	Gt0B	9H	5	5 / >500	n.a.	n.a.
1175WH	24h / Ri0	5h / Ri0	n.a.	Gt0B	9H	5	5 / >500	n.a.	n.a.
C5									
1120	24h / Ri0	5h / Ri0	✓	Gt0B	9H	5	2 / >60	✓ up to 2 µm	850 / 2 / inert
1120-2	24h / Ri0	5h / Ri0	✓	Gt0B	9H	5	2 / >60	✓ up to 2 µm	850 / 2 / inert
1250	24h / Ri0	5h / Ri0	✓	Gt0B	9H	5	2 / >50	✓ up to 5 µm	850 / 2 / inert
C5 NEW GENERATION									
1120V	24h / Ri0	5h / Ri0	✓	Gt0B	9H	3	2 / >50	✓ up to 3 µm	850 / 2 / inert 400 / 8 / air
1250V	24h / Ri0	5h / Ri0	✓	Gt0B	9H	3	2 / >50	✓ up to 3 µm	850 / 2 / inert 400 / 8 / air
1250V Fast	24h / Ri0	5h / Ri0	✓	Gt0B	9H	3	2 / >50	✓ up to 3 µm	850 / 2 / inert 400 / 8 / air
1250C	7d / Ri0	5h / Ri0	✓	Gt0B	9H	3	2 / >50	✓ up to 3 µm	850 / 2 / inert 400 / 8 / air
C6									
1151A	24h / Ri0	5h / Ri0	✓	Gt0B	9H	5	5 / >1500	n.a.	400 / 8 / air
1151E	24h / Ri0	5h / Ri0	✓	Gt0B	9H	3	5 / >1500	n.a.	400 / 8 / air
1151E-1	24h / Ri0	5h / Ri0	✓	Gt0B	9H	3	5 / >1500	n.a.	400 / 8 / air
1151S	24h / Ri0	5h / Ri0	✓	Gt0B	9H	5	5 / >1500	n.a.	400 / 8 / air
C6 NEW GENERATION									
1262	24h / Ri0	5h / Ri0	✓	Gt0B	9H	3	5 / >1500	n.a.	400 / 8 / air
1262A	24h / Ri0	5h / Ri0	✓	Gt0B	9H	3	5 / >1500	n.a.	400 / 8 / air
GRAIN ORIENTED									
1240A+B	48h / Ri0	5h / Ri0	n.a.	Gt0B	9H	10 (90°)	2 / >70	n.a.	850 / 2 / inert

Axalta Coating Systems Austria GmbH & Co. KG
Energy Solutions
Technical Service
Mödlingerstraße 15
2353 Guntramsdorf
Österreich

Phone: +43 22 36 500-230
-405
Fax: +43 22 36 500-208

www.electricalinsulation.com

