

DuPont™ Voltatex® 8700

TECHNICAL DATA SHEET

Chemical base: Polyvinylbutyral

Voltatex® 8700 represents a class of thermoplastic bonding wire enamel without cresylic acid solvent, based on polyvinylbutyral resin with different solid contents such as Voltatex® 8710, Voltatex® 8714 and Voltatex® 8718. Wound coils may be bonded by resistance heating, solvents, heating in an oven or by means of hot air during the winding process.

Voltatex® 8700 bonding wire enamel is preferably used in combination with solderable polyurethane base coats. Minimum bonding temperature is 100 °C, but optimum bond strength requires about 140 °C.

Enamelling technology

Voltatex® 8700 can be used as bond coat for wire sizes from approx. 0.01 mm up to approx. 1.00 mm.

Voltatex® 8700 can be supplied at different viscosities and solid contents as listed below in table 1 to fulfil specific machine and application requirements.

Table 1: Standard parameters

	Voltatex® 8710	Voltatex® 8714	Voltatex® 8718
solid content (1g, 1h, 180 °C)	10 % ± 1 %	14 % ± 1 %	18 % ± 1 %
flow time (4 mm, 23 °C) ISO 2431	15 s – 25 s	35 s – 45 s	
viscosity at 25 °C DIN 53015	approx. 80 mPa·s	approx. 160 mPa·s	520 mPa·s – 680 mPa·s
diluent	Voltatex® 9959	Voltatex® 9959	Voltatex® 9959

DuPont™ Voltatex® 8700

TECHNICAL DATA SHEET

Table 2: Enamelling conditions

bonding wire enamel	Voltatex® 8700
base coat	Voltatex® 6100
recirculating air oven	2.4 m, horizontal
application	felt, 6 passes (for Voltatex® 8700)
oven temperature	450 °C (for Voltatex® 8700)
conductor diameter	0.315 mm
enamelling speed	50 m/min
increase in diameter	30 µm + 17 µm

Table 3: Test results

baking conditions	1 h at 140 °C
bond strength	1.6 N
resoftening temperature	108 °C

DuPont™ Voltatex® 8700

TECHNICAL DATA SHEET

Contact:

DuPont Performance Coatings GmbH
Voltatex® Technical Service
Christbusch 25
42285 Wuppertal
Germany

Phone: +49 202 529-2675 / -2335 / -2387
Fax: +49 202 529-2821
e-mail: Voltatex@dupont.com

www.Voltatex.dupont.com

The information provided herein corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights.

© 2008 DuPont. All rights reserved. The DuPont Oval Logo, DuPont™, the miracles of science™ and Voltatex® are registered trademarks or trademarks of E. I. du Pont de Nemours and Company or its affiliates.



The miracles of science™