

Product Selection Guide Business Line Secondary Insulation

Impregnating Resins - Overview

Primary Insulation

- Terebec®
- Amide imide
- Allotherm
- Nylon
- Isonel®
- Isomid®
- Isomelt®
- Deamelt®
- Formvar®
- Bondall™
- Elmoglas

- Wire enamel with thermal class 105 to 220
- UL approved products
- Environment friendly cresol free products
- Binder varnishes for glass fibre covered conductors
- PVF for CTC & shaped conductors

Secondary Insulation

- ELAN-Safe
- Elmo®
- Elmoglas
- Elmo Luft®
- Elmotharm®
- Isonel®+
- Isopoxy®
- Beckett
- Dobeckan®
- Dobeckot®

- Alkyd, phenolic, polyester, polyurethane and epoxy based
- Solventless and water soluble
- Thermal class 105 to 200. UL approved products
- Dip, VPI, trickle and wet winding resins
- Core plate, impregnating, finishing and binder varnishes

Electronic and Engineering Materials

- Elan-tron®
- Dobeckot®
- Dobefil
- Dobeckan® IF
- SHIMOKOTE
- SHIMOREZ
- SHIPAL
- SHIMOCAS

- Products based on epoxy and polyurethane
- Thermal class 120 to 180
- Halogen-free resins
- Flame retardant resins
- UL approved products
- Available in un-filled and filled versions with variable viscosities and various colours

Disclaimer

This information is intended only for general guidance in the application of our product. It has been obtained by careful investigation and represents the present state of our knowledge and experience. Because of the large number of possible methods of application and processing, we are not able to assume responsibility in any one particular case for either the technical results or the patent rights situation applicable to the country under consideration.



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PRODUCT SELECTION GUIDE : IMPREGNATING RESINS

Product	Hardener /	Gel Time	Viscosity by Brookfield (mPa.s)	Curing cycle (°C/h)	Thermal Class	Distinctive properties	Suggested applications
UNSATURATED POLYESTER / IMIDE MONOSTYRENE DILUTED SOLVENTLESS IMPREGNATING RESINS (Dobeckan)							
FT 1052	P	100 / 40 - 55	480 - 520	140 / 2	180 (H)	Good tank stability, UL approved (E253938) DIP & VPI	Impregnation of general purpose motors, rewinding of medium voltage machines
FT 1052K2	K2	100 / 30 - 45	480 - 520	140 / 2	180 (H)	Fast cure, high reactivity resin, DIP & VPI	Impregnation of small / control transformers
F 2504 / E	P	100 / 30 - 40	800 - 1000	140 / 2	155 (F)	High gloss, white pigmented, good tank stability, DPI & VPI	Impregnation of open type TW & HID ballasts
F 2510/E	P	100 / 20 - 30	50 - 80 ⁽¹⁾	150 / 1	155 (F)	High reactive, white pigmented, DIP & VPI	Impregnation of open type TW & HID ballasts
UNSATURATED POLYESTER / IMIDE VINYL TOLUENE DILUTED SOLVENTLESS IMPREGNATING RESINS (Dobeckan)							
FT 2015 / 90L EK	-	120 / 16 - 24	55 - 65 ⁽³⁾	150 / 1	-	1K, high tank stability, Thixotropic, UL approved (E253938) VPI	Impregnating of Wind mill Generators, All high thermal capability machines
FT 2005 / 500 EK	-	120 / 20 - 40	480 - 520	160 / 4	-	1K, excellent humidity resistance, UL approved (E253938) VPI	Impregnation of traction machines
50 VT-28 F	DICUP	126 / 7 - 14	250 - 700	150 / 2	180 (H)	Filled, high heat dissipation, Off-white colour, good mechanical strength, UL approved (E253938)	Impregnation of open type TW & HID ballasts
50 VT	-	125 / 5 - 15	50 - 75 ⁽¹⁾	150 / 2	-	1K, Glossy finish cured film, good mechanical & dielectric properties	Impregnation of static devices such as transformers
EPOXY BASED SOLVENTLESS IMPREGNATING RESINS (Dobeckot)							
520 F	7055+803 M	120 / 12	720	80°C / 6h + 120°C / 3h	155 (F)	3K, very low viscosity, excellent flexibility, Anhydride cured, VPI	Impregnation of Electrical Machines, ignition coils, potting, Instrument transformer casting
EIP 5070	-	165 / 6 - 10	3000 - 5000	165 / 4	180 (H)	Thixotropic, high viscosity, 1K Epoxy UL approved (E253938)	Impregnation of severe duty motors
EPOXYLITE 987	-	165 / 5 - 15	Paste	165°C / 6h	180 (H)	1K, Red Thixotropic, UL approved (E253938) wet winding	Impregnation of salient pole motor armatures
E468-2FXT	Comp B	135 / 10 - 20	500 -1000	135°C / 4h	180 (H)	2K, Thixotropic, Anhydride cured, UL approved (E 253938) VPI	Impregnation of Open Ventilated dry type & other transformers
UNSATURATED POLYESTER / IMIDE MONOSTYRENE DILUTED SOLVENTLESS TRICKLE RESINS (DOBECKAN)							
FN 1002	K2	80 / 38 - 42	250 - 300	130°C / 30 min	155 (f)	Fast cure, high reactivity resin	Impregnation of solenoid valves, household electrical machines, etc
FT 1040 / 120 E	K2	80 / 35 - 40	110 - 130	130°C / 30 min	180 (H)	Low viscosity, tough and elastic UL approved (E253938)	Impregnation of alternator stators, electrical motor armatures etc.
FT 1040 / 180 E	K2	80 / 35 - 50	160 - 200	130°C / 30 min	180 (H)	Low viscosity, tough and elastic UL approved (E253938)	Impregnation of alternator stators, electrical motor armatures etc.
FT 1080 / 45 E	K2	100 / 5 - 10	40 - 50 ⁽¹⁾	130°C / 30 min	180 (H)	High Reactivity, high mechanical strength UL approved (E253938)	Impregnation of alternator stators, electrical motor armatures etc.
FT 1080 / 85 E	K2	100 / 5 - 10	75 - 100	130°C / 30 min	180 (H)	High Reactivity, high mechanical strength UL approved (E253938)	Impregnation of alternator stators, electrical motor armatures etc.
FT 1080 / 500 E	K2	80 / 35 - 40	480 - 520	130°C / 30 min	180 (H)	High Reactivity, high mechanical strength UL approved (E253938)	Impregnation of Auto components
FT 2001 / 500 E	K2	80 / 20 - 300	430 - 470	130°C / 30 min	180 (H)	High Reactivity, high mechanical strength	Impregnation of Auto Electric components
075 - 2715	K2	100 / 3 - 10	5000 - 10000	130°C / 30 min	180 (H)	High viscosity, filled, high stability	Gel coating of small armatures
TRICKLE IMPREGNATING RESINS (Dobeckot)							
605	762	80 / 5	180	130°C / 30 min	130 (B)	High pot life, heat cured	Impregnation of hand tools, household machines, universal motors, etc
	758	80 / 2	200	130°C / 30 min	130 (B)	Fast cure, high chemical resistance	

Note : • All Dobeckan resins has resin : Hardener mixing ratio of 100 : 1 except Dobeckan 075-2715 where the mixing ratio is 100 : 3 parts by weight. For Dobeckat resins refer respective TDS.

• Shelf life at < 25°C for all Dobeckan resins is 6 months except Dobeckan FT 2015/..EK has 4 months

(1) Viscosity at 25°C by IS 3944-1966/Cup No. 4

(2) Viscosity at 23°C by DIN 53211/Cup 4

(3) Viscosity at 25°C by ISO 2431/Cup 6