

DESCRIPTION

PRODUCT COVERED :

Component - Systems components, electrical insulation.

Class 200 (N) insulation system designated N82

GENERAL CHARACTER :

The insulation system covered by this Report for use in transformer, motor, or coil constructions.

RATINGS :

System Designation	Insulation Class	Maximum Temperature, °C	Indoor	Outdoor (Enclosed)	Maximum Voltage
N82	200 (N)	200° C hot spot	Yes	Yes	600

CONSTRUCTION DETAILS :

<u>Insulation Function</u>	<u>Insulating Material</u>																										
<p>1. Magnet Wire</p>	Aluminum or copper, round or rectangular or sheet.																										
<p>2. Magnet Wire Insulation</p>	<p>R/C Magnet wire (OBMW2) single build or greater</p> <p>Magnet wire types listed below may be used in combination within a single product.</p> <p>A) Polyester basecoat with a polyamide-imide topcoat, rated 200°C or ANSI MW35 type, various manufacturers</p> <p>B) Polyester-amide-imide basecoat only, rated 200°C or ANSI MW74 type, various manufacturers</p>																										
<p>3. Ground and Interwinding Insulation</p>	<p>A) Nomex 410, 414, 418, 424, or 425, 0.005 in minimum thickness; Nomex 411, 0.0115 in. minimum thickness, Nomex E56A, 0.0075 in. minimum thickness; Nomex 992, 0.010 in. minimum thickness; or Nomex 993 or 994, 0.00825 in. minimum thickness, Du Pont.</p> <p>B) Rynite 530, FR530, 0.02 in . minimum thickness, Du Pont.</p> <p>C) Kaladex 2000, 0.001 in minimum thickness, Du Pont.</p> <p>D). Recognized Component - Insulating Tape (QMFZ2), Tapes made from Polyethylene naphthalate, 1 mil Minimum thickness, tapes Manufactured by P. Leo & Co., one layers minimum: 1. 1PEN2, 2. 1PEN3, 3. 1PN2R, 4. 1PN3R</p>																										
<p>4. Minor Sheet Insulation (Layer, Outerwrap, Etc.) (Optional)</p>	<p>(A) Any sheet insulation or tape described in this table with no minimum thickness requirement.</p> <p>(B) The following materials by P. Leo</p> <table border="0"> <tr><td>1. NTN***</td><td>Nomex/Polyester/Nomex</td></tr> <tr><td>2. TK-***</td><td>Coil Paper/Polyester</td></tr> <tr><td>3. TP-****</td><td>PB-2/Polyester</td></tr> <tr><td>4. N/PEN/N-***</td><td>Nomex/Pen/Nomex</td></tr> <tr><td>5. DPD-***</td><td>Polyester Mat/ Pen/ Polyester Mat</td></tr> <tr><td>6. RP65</td><td>Mica Sheet</td></tr> <tr><td>7. N/M-***</td><td>Nomex/Polyester</td></tr> <tr><td>8. D/M/D-***</td><td>Polyester Mat/ Mylar / Polyester Mat</td></tr> <tr><td>9. N/M/N-***</td><td>Nomex / Mylar / Nomex</td></tr> <tr><td>10. SR853T</td><td>Polyester/Mica</td></tr> <tr><td>11. SR315T</td><td>Pen/Mica</td></tr> <tr><td>12. SM61</td><td>Mica Sheet</td></tr> <tr><td>13. D/M**</td><td>Polyester Mat / Polyester</td></tr> </table>	1. NTN***	Nomex/Polyester/Nomex	2. TK-***	Coil Paper/Polyester	3. TP-****	PB-2/Polyester	4. N/PEN/N-***	Nomex/Pen/Nomex	5. DPD-***	Polyester Mat/ Pen/ Polyester Mat	6. RP65	Mica Sheet	7. N/M-***	Nomex/Polyester	8. D/M/D-***	Polyester Mat/ Mylar / Polyester Mat	9. N/M/N-***	Nomex / Mylar / Nomex	10. SR853T	Polyester/Mica	11. SR315T	Pen/Mica	12. SM61	Mica Sheet	13. D/M**	Polyester Mat / Polyester
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6. Tape (Optional)

A. The following tapes manufactured by P. Leo.

- | | |
|----------------|----------------|
| 1. No. 1A025 | 19. No. 1P130 |
| 2. No. 1C821 | 20. No. 1P350 |
| 3. No. 1G006 | 21. No. 1P700 |
| 4. No. 1G015 | 22. No. 1P701 |
| 5. No. 1G027 | 23. No. 1P702 |
| 6. No. 1G130 | 24. No. 1P717 |
| 7. No. 1G830 | 25. No. 1P800 |
| 8. No. 1H850 | 26. No. 1P801 |
| 9. No. 1H860 | 27. No. 1P802 |
| 10. No. 1H86A | 28. No. 1P808 |
| 11. No. 1H861 | 29. No. 1P830 |
| 12. No. 1H862 | 30. No. 1P833 |
| 13. No. 1H863 | 31. No. 1P9FR |
| 14. No. 1K063 | 32. No. 1PK825 |
| 15. No. 1K7177 | 33. No. 1PN820 |
| 16. No. 1M868 | 34. No. 1PN828 |
| 17. No. 1N008 | 35. No. 1PEN2 |
| 18. No. 1N012 | 36. No. 1PN2R |
| | 37. No. 1N155 |

**5. Core Tube or Bobbin
(Mechanical Support Only)
(Optional)**

The following materials manufactured by Chang Chun :

1. Grade T373J
2. Grade T375J
3. PBT-4130

8. Spacers and Wedges (Optional)

(A) Any material described in this table regardless of thickness

(B) The following materials by Glastic :

- | | |
|-----------|---------|
| 1. SG-200 | 2. FHT |
| 3. UTS | 4. TSF |
| 5. MTS | 6. 1580 |
| 7. 1583 | |

9. Sleeving

A. Teflon Tube 2T-TFL, 2T-TFT by P. Leo

11. Potting Compound (Optional)

- A. No.8705, Epoxylite
- B. No. 8822, Epoxylite

12. Varnish

R/C Varnishes (OBOR2), the following manufactured by Ripley Resin Engineering :

- A. No. 468-2 (+)
- B. No. 468-2-7 (+)
- C. No. 468-2FC (+)
- D. No. 468-2FX

(+) May be followed by a one to three alphanumeric suffix indicated percent of inert filler and/or color.