

WESTINGHOUSE
ELECTRIC & MANUFACTURING COMPANY
(Including Branch Works & Subsidiary Companies)

Purchasing Department Specification No. 6935-A
(Not for publication) Ltd. X-C

TENTATIVE SPECIFICATION
November 29, 1942

INERTEN (CAPACITOR)

1. This specification covers Inerteen designated as follows:

P.D.Spec. Designation	Previous P.D.Spec.	Description
6935-1	6935	A viscous liquid chlorinated diphenyl which has a chlorine content approximating that of pentachlorodiphenyl and which possesses chemical and physical properties as defined in sections 3 to 14 inclusive below.

NOTE: UNLESS OTHERWISE SPECIFIED BELOW, THE FOLLOWING REQUIREMENTS APPLY ONLY TO THE 6935-1 MATERIAL.

2. No change shall be made in the quality of successive shipments of material furnished under this specification without first obtaining the approval of the purchaser.

CHEMICAL PROPERTIES AND TESTS

3. ACIDITY: The acidity shall be less than 0.01 mg NaOH/gram, when tested in accordance with Monsanto Chemical Company Method No. 14-42-41

4. CHLORIDES: The material shall not contain more than 0.15 ppm. of free chlorides when tested in accordance with Monsanto Chemical Company Method No. 14-38-41.

5. FIXED CHLORINE: The fixed chlorine content shall be $55.0 \pm 0.5\%$.

PHYSICAL PROPERTIES AND TESTS

6. DISTILLATION RANGE: The distillation range, when tested in accordance with Standard Method of Test for Distillation of Tar Products, D-20, latest revision, of the American Society for Testing Materials, shall be as follows: *Modified Method 14-31-41*

10 per cent point between 350 and 355 C

50 per cent point between 355 and 362 C

90 per cent point between 362 and 375 C

~~Temperatures given are those corrected for stem exposure.~~

7. CONDITION: The material shall be clear.

8. SPECIFIC GRAVITY: The specific gravity at 65°C/15.5°C shall not be less than 1.495 nor more than 1.505. *Monsanto 14-45-41*

9. VISCOSITY: The viscosity, as determined with the Saybolt Universal Viscosimeter at 98.9°C, shall not be less than 44.5 seconds nor more than 47.5 seconds, when tested in accordance with Standard Method of Test for Viscosity by means of the Saybolt Viscosimeter D 88, latest revision, of the American Society for Testing Materials.

Monsanto 14-29-41

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10. Color: The color shall not be greater than 150 A.P.H. as determined by the I.R.S. method H-6871A25. *Monsanto 01-44-41*

11. POUR POINT: The pour point shall not be less than 8°C nor more than 12°C when tested in accordance with Methods of Test for Cloud and Pour Points, D-97, latest revision, of the American Society for Testing Materials. *Monsanto 14-23-41*

12. ELECTRICAL RESISTIVITY: (a) The electrical resistivity at 100°C, when tested at 500 volts DC, shall be greater than 100×10^9 ohms/cm³. *Monsanto 14-35-41*

(b) The resistivity when tested at 500 volts DC after 96 hours at 100°C, shall not drop below the original value.

13. DIELECTRIC CONSTANT: The dielectric constant at 100°C shall not be less than 4.15 nor more than 4.35, when tested in accordance with I.R.S. Method H-3955871, latest revision. *Monsanto 14-36-41*

14. HEATING LOSS: The loss on heating at 100°C for six hours shall be less than 0.2 per cent, when tested in accordance with I.R.S. Method H-3955622, latest revision. *Monsanto 14-35-41*

PACKING AND MARKING

15. PACKING: The Inerteen shall be shipped in drums or tank cars, as specified on The Purchase Order.

16. DRUMS: (a) Drums shall be of 55-gallon capacity, and shall conform to the regulations of the Interstate Commerce Commission.

(b) Each drum shall be filled with 600 pounds $\pm$ 5 pounds net weight.

(c) Each drum shall have one, two-inch bung and one 3/4-inch bung in the head.

17. MARKING OF DRUMS: Each drum shall be plainly marked as follows: Purchase Order Number, P.D.Spec. 6935-1-A; Net Weight in Pounds; Name of Manufacturer.

18. MARKING FOR TANK CARS: Each tank car shall have a packing slip bearing the following information: Purchase Order Number; P.D. Spec. 6935-1-A; Net Weight in pounds; Name of Manufacturer.

INSPECTION

19. INSPECTION: The supplier shall furnish the purchaser a test report with each shipment of Inerteen, and definitely identified with that shipment, covering the following properties:

Specific Gravity at 65°C/15.5°C
Color (APH)
Condition
Acidity
Free chlorides
Pour point
Viscosity at 28.9°C

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Distillation range
10% point
50% point
90% point
Dielectric Constant
Resistivity

20. SHIPMENT OF MATERIAL: (a) Material meeting the specification in all respects may be shipped without the purchaser's prior approval. The test report shall be forwarded to the purchaser at the time of shipment.

(b) Material varying in any manner whatsoever from the specification requirements shall not be shipped without the purchaser's approval. In such cases, the test report shall be forwarded to the purchaser, who will determine from this report whether the material is acceptable. The material shall be held at the place of manufacture until definite approval is received from the purchaser.

REJECTION

21. REJECTION: The purchaser reserves the right to reject any portion or all of the material which does not conform to the above specification in every particular and to return the rejected material to the manufacturer or seller for full credit at price charged f.o.b. point of delivery specified by the purchaser. If the material is to be replaced, a new order will be entered at prices, terms and conditions acceptable to the purchaser.

APPROVED:

REVISED:

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