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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

DL/T 627-2012

**Room temperature vulcanized silicon rubber anti-pollution
coating for insulators
(English Translation)**

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Foreword

This Standard replaces DL/T 627-2004 Room temperature vulcanized silicon rubber anti-pollution coating for insulators. Compared with DL/T 627-2004, the main differences in this Standard are as follows.

- modified the "Terms", "Basic technical requirements", "Inspection rules" and "Operation maintenance" in DL/T 627-2004;
- added "Overhaul" and "Technical management".

This Standard was proposed by China Electricity Council.

This Standard shall be under the jurisdiction of National Technical Committee on Power Industry Insulators of Standardization Administration of China.

Main revising organization of this Standard. State Grid Electric Power Research Institute.

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Send any opinions or suggestions during the implementation of this Standard
to China Electric Power Enterprise Federation Standardization Management
Center (address. No. 1, 2nd Lane, Baiguang Road, Beijing, 100761)

Room temperature vulcanized silicon rubber
anti-pollution coating for insulators

1 Scope

This Standard specifies the basic technical requirements, inspection rules,
packaging and storage, selection principle, acceptance, construction,
operation maintenance and technical management of room temperature
vulcanized silicon rubber anti-pollution coating for insulators (referred to as
RTV).

This Standard is applicable to RTV coating used for insulators that are
operating under the pollution conditions that AC system rated voltage is
higher than 1000 V, ambient temperature is at -40°C ~ +40°C.

This Standard shall be used for DC system as reference.

2 Normative references

The following referenced documents are indispensable for the application of
this document. For dated references, only the edition cited applies. For
undated references, the latest edition of the referenced document (including
any amendments) applies.

GB/T 529-2008, Rubber vulcanized or thermoplastic - Determination of
tear strength (Trouser, angle and crescent test pieces)

GB/T 775.1-2006, Test method for insulators - Part 1. General test
methods

GB/T 775.2-2003, Test method for insulators - Part 2. Electrical test methods

GB/T 1408.1-2006, Electrical strength of insulating materials - Test methods - Part 1. Tests at power frequencies

GB/T 1409-2006, Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including meter wavelengths

GB/T 1692-2008, Vulcanized rubber - Determination of the insulation resistivity

GB/T 1720-1979, Method of test for adhesion of paint films

GB/T 1723-1993, Determination of viscosity of coatings

GB/T 1725-2007, Paints varnishes and plastics - Determination of non-volatile-matter content

GB/T 1768-2006, Method of test for abrasion resistance of paint films

GB/T 2900.5, Electrotechnical terminology - Insulating solids, liquids and gases

GB/T 2900.8, Electrotechnical terminology - Insulators

GB/T 2900.19, Electrotechnical terminology - High-voltage test technique and insulation co-ordination

GB/T 6553-2003, Test methods for evaluating resistance to tracking and erosion of electrical insulating materials used under severe ambient conditions

GB/T 6753.2, Paints and varnishes - Surface-drying test - Ballotini method

GB/T 9274-1988, Paints and varnishes; Determination of resistance to liquids

GB/T 10707-2008, Rubber - Determination of the burning

GB/T 13936, Rubber, vulcanized - Method for determination of strength properties of adhesive to metal in shear by tension loading

GB/T 16927.1, High-voltage test techniques - Part 1.General definitions and test requirements

GB/T 16927.2, High-voltage test techniques - Part 2.Measuring systems

GB/T 19519, Insulators for overhead lines - Composite suspension and tension insulators for a.c. systems with a nominal voltage greater than

1000 V - Definitions, test methods and acceptance criteria

GB/T 20642, Impulse puncture test in air on insulators for overhead lines

DL/T 859, Artificial Pollution Tests on Composite Insulators Used on High-voltage AC Systems

DL/T 864, Application guide of composite insulators for AC overhand lines with a nominal voltage over 1000 V

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 2900.5, GB/T 2900.8 and GB/T 2900.19 as well as the follows apply.

3.1 anti-pollution coating

A layer of room temperature curing silicone rubber coating on the insulating surface of the insulator under the condition of pollution, referred to as RTV anti-pollution coating. This Standard divides RTV coating products into ordinary RTV-I type and enhanced RTV-II type.

3.2 RTV coating

a thin film of a layer of room temperature cured silicone rubber coated on the insulating surface of the insulator is called a coating

3.3 Self-cleaning

the ability of RTV coating inhibiting the adhesion of dirt to its surface