



VoltShield®

Revision date: 1 June 2020

A chemically cross-linking polymeric resin reacted with a catalyst in an industrial solvent base for the durable, 'non-stick' surface protection of glass and glazed ceramic electrical insulators.

technical data

I. Uses

Specially formulated for the environment that electrical insulators are exposed to, higher resistance against moisture and alkalinity, withstands staining and / or discolouration making it easier to clean and keep clean.

2. Benefits

- Improved catalyst forms a multi-molecular, chemical bond with the surface for a more durable performance
- Increased amount of bonding sites for a more effective performance
- Reduces build-up of surface pollution on insulators so potentially increasing the insulator service life
- Reduces 'flashover'
- Improves the Alternating-Voltage Corona Inception

3. Physical Properties

State:	Liquid
Colour:	Colourless
Odour:	Perceptible odour
Evaporation rate:	Moderate
Oxidising:	Non-oxidising (by EC criteria)
Solubility in water:	Not miscible
Also soluble in:	Most organic solvents
Viscosity:	Non-viscous
Boiling point / range:	33-37°C
Relative density:	1.07-1.14 +/-0.05

4. Pack Sizes

- 10 x 500ml bottles
- 5 litre drums
- 25 litre drums

5. Coverage Rates – Typical

Manual spray:	40-50m ² per litre
Hand application:	80-100m ² per litre

6. Handling and Storage

Ensure there is sufficient ventilation of the area. Store in cool, well-ventilated area at a temperature not exceeding 25°C. Keep container tightly closed. Must only be kept in original packaging. Consult your own CoSHH Assessment.

7. Curing Rate

Normal Ambient Temperature: 35-45 minutes

8. Surface Operating Temperature

+3°C to +35°C

9. Health & Safety

Not classified as hazardous. If necessary, consult the relevant Safety Data Sheet available from Ritec on request.

10. RoHS Compliant

Product:	Yes
Packaging:	Yes

II. PBT

Not identified as a PBT substance.

PERFORMANCE TESTING RESULTS

IEC 60060 – Tamworth HVL ref HV381 2003

On BR120 & BR140 Type Third Rail Insulator, significant increases of frequency flashover performance of 9-18%

IEC 60060-1 – Tamworth HVL ref HV383 2003

On 33kV Post Insulators (drawing FB2513 ref P11126) Increase flashover performance of 130kV against 116.3kV indicating an average performance gain of 12% on samples tested

IEC 60507 – Tamworth HVL

- (a) Kiesulghur Mixture, no adhesion
- (b) Kiesulghur Mixture @ 400%, no adhesion

BS EN 60587 – N. Evagelos M.Sc. Report REFLEX, University of Newcastle upon Tyne 2008

On toughened glass samples, Pass, showing an average of 15% increase of performance

BS EN 60507:1993 – FGH Mannheim Feb 2010

IEC 507:1991 Section 3, Pass, Salinities @ 160kgs/m³ Carried out on 400kV Post Insulators, meets requirements of IEC60060-1

GOST 6490-93 – Yuzhnouralsky Insulators and Fittings Plant AO (JSC) Testing Centre YuAIZ AO meeting requirements ISO / IEC17025:2005, Report by Mr A. Cheskidov Sept 2016

Vilrida PSV120B Suspension Insulators
Increase in Performance Short String Wet: +~30%
Increase in Performance Short String Salt Spray Wet: +~30%
Increase in Performance Short String Salt Dry Value: +~40%



Important Note

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