



**Zahabiya Chemical Industries**

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**PRODUCT DATA**  
**ZAHABIYA THERMO SEALANT - 15 / 99**  
**(HOT CURE SEALANT)**

**INTRODUCTION:**

ZAHABIYA THERMO SEALANT is a Heat Curing one component adhesive, thixotropic in nature, especially designed to be applied on METAL SURFACES. The adhesive dries up or cures only after the heat treatment, to form excellent bonds with the metallic surfaces; the union being almost permanent in nature, unaffected with atmospheric conditions and wear & tear. The product is Safe in handling, Non-Corrosive and Non-Flammable.

This product finds specific usage in the industrial applications, especially those related to sheet metal assemblies. The cured adhesive shows excellent bonding properties to mild steel, tin plate / nickel / zinc coated surfaces, provided these are cleaned perfectly before sealant's application. Temperature control is required for proper curing, depending upon the thickness of the sheet & volume of the sealant / adhesive applied there in, normally ranging between 170°C to 180°C, for 10-20 minutes.

This product is beneficially and perfectly used in Engineering & Automobile assemblies as the jointing sealant for sheet metal overlaps and seam joints possessing perfect bonding properties.

Besides many utilities in Engineering sector, one of the major uses in the industrial field include the application in Sheet metal assemblies, in the production of automotive industrial AIR, OIL & FUEL FILTERS having metallic ends, the adhesive sealant cured at high temperature through air circulatory oven or hot plate techniques. The material is characterised by good adhesion on full curing, bonding and sealing the filter paper stars with the metallic end caps. The bond obtained is non-cracking and non-peeling, abrasion and shock resistant. For the curing temperature, please refer "Drying / Curing " described on the other page.

Special grades for specific kind of application may be available on request only. It is also beneficially used in Refrigerators / Deep freezers / Air conditioners manufacturing as best body seaming sealant on sheet joints.

**BEHAVIOUR:**

This product is safe in handling and free from hazardous volatile solvents. The cured seal formed is hard but Non-Cracking, Water Proof, Diesel, Fuel, Petrol and Oil Proof, resisting the attack of their vapours too. Oil Immersion tests show full resistance to oil maintained at a constant temperature of 160°C for 21 days without the failure of bonds between paper to metal end caps. The bond is good enough in Diesel Fuel & Petrol, even after many days of continuous exposure.

**APPLICATION:**

For better adhesion, make sure the surface to be clean, dry and free from grease or oil layer. The application of the adhesive sealant is done manually or preferably mechanically. The adhesive may be dispensed or transferred from the reservoir, through pressure activation system, to the applicator nozzle. The nozzle releases the pre-calculated volume of the sealant on to the sheet metal surface or the filter end caps during the automotive filter manufacturing. The adhesive is equally and evenly dispersed all around the metallic surface to get uniform end seal. A rotating turn table is preferable for the end caps in filter making, when the paper star is inserted in the uniform thick layer of sealant, before subjecting it to heat treatment for perfect curing.

At other sheet metal fabricating jobs, this sealant may be applied by paint brush, applicator or caulking gun (grease gun ), at sheet seams or joints; as the case in Refrigerators' / Deep Freezers' metallic body, before Poly Urethane Foaming is done.

**SUPPLIES:**

Supplied in Air-tight containers of 30 Kgs., 60 Kgs., & 275 Kgs.

**FOR QUALITY USAGE :**

**PLEASE MENTION ABOUT THE INTENDED USE WHILE PLACING ORDERS TO ENABLE US TO PROVIDE YOU THE MOST APPROPRIATE PRODUCT.**



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**PRODUCT DATA**  
**ZAHABIYA THERMO SEALANT --15/99**  
**(Hot Cure Sealant)**

**PROPERTIES:**

**COLOUR:**

Usually Grey, Yellow or Brown. Colour Option available on bulk orders.

**ODOUR:**

Free from unpleasant odours

**CONSISTENCY:**

Dense viscous pasty compound.

**SPECIFIC GRAVITY:**

In normal batches, it ranges from 1.55° to 1.60° Baum' at 25°C during six months of manufacturing. The average weight being 1.50 kg. Per Litre. (ASTM-D 1475)

**SOLID CONTENT:**

Contains 99% Non Volatile. (ASTM-D 1644)

**COVERAGE:**

Variable according to the size, surface and thickness of the application (filling area), normally being 1.55 Gram/cc.

**SERVICE TEMPERATURE:**

Temperature Resistance of the cured sealant ranges from -50°C to 280°C (continuous) and for intermittent exposure or 350°C for short spells. (FSTM 70)

**DRYING/ CURING:**

Recommended to be CURED in an Air-Circulatory Oven between 160°C to 180°C for 6 to 8 minutes; and on Heating Plate type Oven between 150°C to 160°C for 5 minutes for the thickness of 3mm approximately. However, to get best results the curing time must be adjusted according to the dimension/volume of the Sealant filled in the metal end or cap.

**BEHAVIOUR:**

Safe in handling, Non-Toxic, Non-Corrosive and Non-Flammable in nature. The perfectly dried/cured sealant layer has the perfect adhesion to metallic surfaces, does not crack upon atmospheric exposures, Cold & Hot Water Proof, Vapour Barrier, Oil & Solvents Resistant, Resistant to Acids/ Alkalis, Resistant to U/V light & Ozone and is Non-Conductor to electricity in thick layers. The cured sealant is safe up to 350°C for short spells. It is insoluble and un-affected by Edible Oils, Lubricating Oils, Hydraulic Oils, Petrol, Diesel fuel and common aliphatic and aromatic solvents. (ASTM-D 3278)

**SAFETY:**

Safe in handling and skin contact. Non-Corrosive, Non-Flammable and Fire Retardant.

**DILUENT:**

Use White Sprit/S.M.T for cleaning while wet and as diluent, if needed.

*IMPORTANT NOTICE: The Information and Data contained herein are correct to the best of our knowledge, tests and experience. These are presented in good faith to the users. The recommendations and suggestions mentioned are made without guarantees or representations as to the results. The Consumer should satisfy himself as to the suitability of the product for the intended purpose and use. WE ASSUME; NO LIABILITY for damages of any kind and the user accepts the product 'as is' and without any other warranties, expressed or implied. Our warranty is limited to the replacement of proved defective **Zahabiya** product only, provided used within shelf life.*