



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

**SEALER, PVC, SOLVENT FREE, AIRLESS SPRAYABLE
LOW TEMPERATURE**

WSS-M4G265-B

1. SCOPE

The material defined by this specification is a solvent free, airless sprayable vinyl based and paint oven temperature curing sealer.

2. APPLICATION

This specification was released originally for material used for sealing of interior and exterior spot weld flanges.

The Manufacturing Properties and Engineering Performance Requirements defined in this specification are based upon laboratory coupon testing and define the minimum acceptance criteria for sealer performance. The assembly process and design for the component will determine the specific sealer processing parameters for each assembly line. The component engineering performance requirements are defined by the component SDS (Sub-system Design Specification).

Prior to use, the sealer must be evaluated under the component production parameters. The choice of substrates, stamping lubricants, stamping plant processing conditions, assembly plant processing conditions and specific design application may affect sealer performance. Compliance with this specification does not guarantee the sealer will function for all potential applications on a vehicle.

3. REQUIREMENTS

Note: Use test panels EC-coated according to FLTM BI 120-01, C. The material must be applied on the EC-coated test panels 30 minutes after oven curing.

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 SYSTEM COMPATIBILITY

Initial sealer approval was based on a specific material system which includes the substrate, lubricant, e-coat, sealer, primer, and topcoat. The material system was oven cured using specific production process parameters. Substrate choice, coatings, and assembly plant processing conditions may affect sealer performance. If any of these parameters are changed, the sealer performance must be validated using the new parameters.

Date	Action	Revisions
2003 04 28	Activated	W. Scholz

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3.3 MATERIAL PROPERTIES

3.3.1	Color	Yellow or as specified on Engineering drawing.
3.3.2	Solids, min. (FLTM BV 150-10)	98%
3.3.3	Ash, max. (FLTM BV 150-10)	45%
3.3.4	Density at 20 °C, max. (ASTM D 1475)	1.46 g/cm ³
3.3.5	Viscosity at 20 °C	
3.3.5.1	As received:	180 – 340 Pas
3.3.5.2	After Ageing, max. (72h at 35 +/- 2 °C)	340 Pas
	Test Method	
	1. Brookfield viscosimeter type RVT/D, spindle no. 6, 2.5/min. 2. Conditioning of material under test at 20 °C. 3. Let the material rest for rest for 30 min prior to test 4. Calculation of viscosity shall be based on the average readings after 3 min and 7 min rotational time.	
3.3.6	Cold Adhesion after Heat Ageing (FLTM BV 153-04, method B, test panels 300 x 100 x 0.8 – 0.9 mm, except test panel preparation according to clause 3. Note: heat curing according to FLTM BV 150-05, table 2, phase 3, min. and max. curing cycle, except in addition to the curing 14d heat ageing at 80 +/- 2 °C).	No cracking, no loss of adhesion, no blistering.
3.3.7	Corrosion Resistance (FLTM BV 153-11, method B, except in addition to the curing 14d heat ageing at 80 +/- 2 °C, heat curing according to FLTM BV 150-05, table 2, phase 3, min. and max. curing cycle)	No corrosion
3.3.8	Flow Rate, max. (FLTM BV 153-01 A/B, method A, except prepare test panels according to clause 3, Note)	3 mm