

REDUCING SOLVENTS FOR TOPCOATS

9984425 9984430 9984431 9984436 9984462

9984467 9984473 9984494 9984495

1 SCOPE. This specification covers the basic physical, chemical and performance requirements of reducers for use with various topcoat paint materials used on metal and plastic parts. The reducers are covered by specification numbers specific to the topcoat material with which they are used, described below. These reducers are used to adjust paint application viscosity, overall solvent evaporation for proper application, and film flow after application. The reducers may be individual solvents or blends of classes of solvents such as aromatic hydrocarbons, ketones and esters. Reducers approved under each specification are not interchangeable, and must be evaluated and approved for use with each specific approved topcoat material before addition to the applicable approved source list.

1.1 The following topcoat reducers are covered by this specification:

9984425 - Mistcoat Thinner - Solution And Dispersion Lacquer
 9984430 - Repair Thinner For Lacquer
 9984431 - Clear Containing Mistcoat Thinner For Lacquer
 9984436 - Line Thinner - Dispersion Lacquer
 9984462 - Reducer For 9984064 High Solids Enamel
 9984467 - Reducer For 9984852 (9984506) Flexible Clearcoat
 9984473 - Reducer For Solventborne Enamel Basecoat
 9984494 - Reducer For 9984087 Stripping Paint
 9984495 - Reducer For 9984029 Interior Lacquer

2 REFERENCED STANDARDS.

ASTM D56	ASTM D1078
ASTM D1012	ASTM D1298

3 REQUIREMENTS. Materials submitted for qualification to this specification must meet all the physical, chemical and performance requirements herein.

3.1 Physical Requirements. This specification covers individual solvents or blends of solvents having a wide range of physical properties. Upon submission, therefore, the following physical properties shall be provided for each reducer and shall form the specification requirement for all subsequent lots.

3.1.1 Following data shall be provided for each approved product:

3.1.1.1 Distillation Range C (ASTM D1078)

Initial boiling point, min

10% boiling point, min

50% boiling point, max

End (dry) point, max

3.1.1.2 Flash Point C (ASTM D56)

3.1.1.3 Specific Gravity at 25 C (ASTM D1298)

3.1.1.4 Aniline Point C (ASTM D1012)

3.2 Chemical Requirements.

3.2.1 Identification. Gas chromatographic and infrared analysis will be used to identify, characterize and qualify new materials for approval to this specification. All subsequent lots of the approved material must be compositionally identical to the initial samples submitted for qualification.

3.2.2 Purity. Minimum 99% purity by gas chromatographic assay. The material must be free of any suspended particles, corrosion products, undissolved water, silicones or any other materials detrimental to the painting process. Product must be essentially colorless and not impart any color to coating materials.

3.2.3 Odor. The odor of the material shall be reviewed in comparison with current production materials. Any significant change in the material's characteristic odor must be evaluated in a GM approved laboratory and production trial. Any change in formulation must be reassessed for effect on odor.

3.2.4 Hazardous Materials Documentation. The supplier must provide all required safety documentation upon initial submission. Toxicity and flammability will be assessed by the using plant's Hazardous Materials Committee to determine conditions for use. The supplier must comply with all governmental regulations regarding proper labelling of hazardous materials.

3.2.5 Solvent Emissions Compliance. The supplier must furnish to the using plant's Plant Engineering Department all information required to assess the effect of materials' use on meeting governmental restrictions on the discharge of volatile organic compounds (VOC) and disposal of hazardous waste.

3.3 Performance Requirements. The reducer shall be assessed and found satisfactory in plant trials with the intended approved primer material. Subsequently, the material must perform satisfactorily in the specified production application. Failure to do so shall constitute reason for rejection regardless of compliance with the other requirements of this specification.

4 SOURCE SHIPMENT RESPONSIBILITY. It will be the responsibility of the supplier to insure that the material is not exposed to temperatures during shipment which would cause the material to fail to meet any of the requirements of this specification.

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5 INITIAL SOURCE APPROVAL. No shipment shall be made by any supplier until representative initial production samples have been approved by engineering as meeting the requirements of this specification.

5.1 Completed copies of the GM Material Safety Data Sheet and Critical Material Register (available from the engineering department or laboratory), or equivalent, must be submitted with any new submissions or where a composition change has occurred.

6 INSPECTION AND REJECTION. All shipments of material or parts under contract or purchase order manufactured to this specification shall be equivalent in every respect to the initial samples approved by engineering. There shall be no changes in either formulation or manufacturing processes permitted without prior notification and approval by engineering.

Lack of notification by the supplier constitutes grounds for rejection of any shipment. While samples may be taken from incoming shipments and checked for conformance to this specification, the supplier shall accept the responsibility for incoming shipments meeting this specification without dependence upon purchaser's inspection.

7 APPROVED SOURCES. Engineering qualification of an approved source is required for this specification. Only sources listed in the GM Corporate Materials File under this specification number have been qualified by engineering as meeting the requirements of this specification. Sources are available through the on-line MATSPC System.

8 GENERAL INFORMATION. This is a newly issued specification originated by the Paint Committee in July 1990.