



Paint Shop Reusable Coverall

1 Scope

1.1 Material Description. This specification details the requirements for reusable coveralls to be used in GM Paint Shops in preparation of the body for Phosphate, Electrodeposition Primer (ELPO), Primer, and Top Coat.

1.1.1 Production Coverall Material Description. See 3.1.3.6.

1.1.2 Personal Protection Equipment (PPE) Safety Coverall Material Description.

1.1.2.1 Each Global Paint Shop operations must require use of a coverall for all workers (GM and Contractor) who perform activities that involve the transporting/handling of flammable or combustible chemicals (Class 1-4 or regional equivalent), in quantities of 20 L (5 gal) or more that must meet the following minimum requirements:

- 1) Fire Protection:
 - a) Coverall: Must be rated at least a Flame Resistant (FR) rating of 4.4 calories/cm² or greater.
 - b) Base Layer: Non-FR rated street or personal clothing must not be worn under the coverall. If a base layer is worn, then it must be FR rated.
- 2) Quality: Lint-free and Silicon-free.

Production or other coveralls that do not meet the preceding characteristics, must not be worn when transporting/handling of flammable or combustible chemicals as stated in 1.1.2.1.

Note: The Global Safety and Industrial Hygiene team and the Global Manufacturing Engineering Vehicle Systems Global Center have developed a non-mandatory Guidance Document to help sites implement these requirements. Example coveralls and base layers are included in the guidance document; REF15-02-Action10 - FR Coveralls – Guidance Document, see 2.3.

1.2 Symbols. Not applicable.

1.3 Applicability. The production coverall use, is to protect the quality of the surface during the preparation of the vehicle before and after the paint process. In addition, the PPE safety coverall is used in high risk areas (paint mix room, loading dock, paint storage and or any material over 20 L (5 gal)) of the paint shop where potential injury could occur.

1.4 Remarks. Not applicable.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ASTM D737-96 ASTM E96-95

2.2 GM Standards/Specifications.

GMW3059 GMW16546 GMW16656

2.3 Additional References.

REF15-02-Action10 – FR Coveralls – Guidance Document (ID), available at (<https://shareent.gm.com/sites/GSHDashboard/2015GCTA/SitePages/Home.aspx>).

(ID) = This document is limited to internal distribution within General Motors and shall not be distributed outside this company. Contact the GM Lead Engineer for further instructions.

3 Requirements

Specific coverall properties and appropriate test methods are detailed as follows. Pertinent definitions and test summaries are provided in Appendix A.

3.1 Requirements on Delivery. Coveralls need to meet these property requirements to assure that no contaminants will be released from street clothing onto the paint. These requirements also guard the paint against contamination from the coverall itself.

3.1.1 Chemical Requirements. No chemical that could be detrimental to the paint should be used.

3.1.1.1 Chemical Composition. Silicone or lanolin compound of any kind is not allowed in/on the coveralls.

3.1.1.2 Emission. Containers of coveralls should not emit any chemical vapors or particles that may become airborne and detrimental to the applied paint coatings.

3.1.1.3 Particulate Generation/Release. The following conditions must be **less than or equal to** the given number in Tables 1 and 2. See Appendix A, A1.1 for details.

Table 1: Particulate Generation/Release

Test Methodology	Specification
Readily Releasable	$\leq 100\,000$ particles/m ³
Bi-Directional Shake	$\leq 1\,400\,000$ particles/m ³

Table 2: Personal Protection Equipment (PPE) Particulate Generation/Release

Test Methodology	Specification
Readily Releasable	$\leq 600\,000$ particles/m ³
Bi-Directional Shake	$\leq 2\,000\,000$ particles/m ³

3.1.2 Mechanical Requirements. Not applicable.

3.1.3 Physical Requirements.

3.1.3.1 Ankle Closure. Snug fit around ankle with snaps located at the back of the leg.

3.1.3.2 Wrist Closure. Elastic with a snap for adjustment and no exposed snaps (even at loosest fit).

3.1.3.3 Front. No wrinkles, belts or snaps exposed. Full-length, small-tooth, double-action zipper with a snap on the zipper flap. Waist should have elastic in rear.

3.1.3.4 Cut Edges. No cut edges should be exposed.

3.1.3.5 Ventilation Panels. Vents should be placed between sleeves along the upper back and on the sides from the armpit to the waist. In addition, a vent is needed on the inseam from the crotch area to the bottom.

3.1.3.6 Material. Low-linting, non-cratering, snag/tear resistant material should be used. The coverall material described in this specification is not meant to be considered as:

- A means of protection against isocyanate materials
- Flame resistant

Coverall serving the preceding protectionary measures are covered in alternate specifications.

3.1.3.7 Buttons. A non-marring material should be used in the buttons.