



Injection Mold Maintenance

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. The Part supplier is responsible for establishing and sustaining a documented Total Productive Maintenance (TPM) program for GM capital tools and equipment. The tool source must provide a recommended TPM schedule to the Part supplier.

1.2 Applicability. This standard is applicable to Part suppliers' injection mold tooling.

2 References

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

2.1 External Standards/Specifications.

AIAG APQP

2.2 GM Standards/Specifications.

GMW3059

2.3 Additional References.

- GM 1927-16b Injection Molding Process Audit available from GM Supply Power at: <https://gmsupplypower.covisint.com/>.

3 Test Preparation and Evaluation

3.1 Resources. Not applicable.

3.1.1 Facilities. Not applicable.

3.1.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.1.2 Equipment. Not applicable.

3.1.3 Test Vehicle/Test Piece. Not applicable.

3.1.4 Test Time. Not applicable.

3.1.5 Test Required Information. Not applicable.

3.1.6 Personnel/Skills. As required.

3.2 Preparation. Not applicable.

3.3 Conditions.

3.3.1 Environmental Conditions. Not applicable.

3.3.2 Test Conditions. Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

3.4 Instructions. Not applicable.

3.5 Data. Not applicable.

3.6 Safety. This standard may involve hazardous materials, operations, and equipment. This standard does not propose to address all the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

3.7 Documentation. Samples of components or material released to this standard shall be tested for conformity with the requirements of this standard and approved by the responsible GM Department prior to the start of delivery of production level components or materials.

Any change to the component or material, e.g., design, function, properties, manufacturing process and/or location of manufacture requires a new release of the product. It is the sole responsibility of the supplier to provide the customer, unsolicited, with documentation of any change or modification to the product/process, and to apply for a new release.

If not otherwise agreed to, the entire verification test shall be repeated and documented by the supplier prior to start of delivery of the modified or changed product. In some cases, a shorter test can be agreed to between the responsible GM department and the supplier.

The part supplier Process Control Plan, in accordance with the Automotive Industry Action Group Advanced Product Quality and Process Control (AIAG APQP) process and GM 1927-16b Injection Molding Process Audit available from GM Supply Power at: <https://gmsupplypower.covisint.com/>, will include operating instructions that directly relate to production operations that validate the mold tooling performance, for example; match line and parting line flash within the course of each maintenance cycle.

3.7.1 Test Results. Not Applicable.

4 Requirements and Procedure

4.1 General.

4.1.1. The TPM history must be initiated at the first tool tryout and sustained and documented by the Part supplier for the life of the program. The TPM history must include the service time, number of shots on cycle counters between services, and schedule of tasks performed. Initial tool maintenance must be performed at no later than 15 000 shots.

4.1.2 The minimum required mold tool maintenance is listed in Appendix A, Table A1.

5 Provisions for Shipping

Not applicable.

6 Notes

6.1 Glossary. Not applicable.

6.2 Acronyms, Abbreviations, and Symbols.

AIAG	Automotive Industry Action Group
APQP	Advanced Product Quality and Process Control
GPM	Gallons per Minute
LPM	Liters per Minute
TPM	Total Productive Maintenance

7 Additional Paragraphs

7.1 All parts or systems supplied to this standard must comply with the requirements of GMW3059, **Restricted and Reportable Substances**.