

IMDS Recommendation

IMDS 018

Automotive Glazing Parts

1 Purpose

This recommendation describes the general requirements for the creation of Material Data Sheets for Automotive Glazing parts (e.g. laminated safety glass or single-layer safety glass), such as windscreens, side and rear windows, roof glass and partition glass within vehicles. Other glass applications such as mirrors or headlamps have not been considered within this recommendation (for headlamps, see the recommendation IMDS 014 on lightings).

2 References

- Other useful recommendation documents: IMDS 001 (General structure), IMDS 003 (Elastomers), IMDS 010 (Polymers), IMDS 013 (Thermoplastic elastomers)
- The Global Automotive Declarable Substance List (GADSL, www.gadsl.org)
- End of Life Vehicles Directive 2000/53/EC.

3 Definitions

3.1 Component

With this an Automotive Glazing part will be described, e.g. a windscreen, as well as other sub-parts fixed to this part. Sub-parts will be composed of sub-components or materials (see paragraph 4 and IMDS Recommendation 001).

3.2 Material

Describes the material from which a part is produced. Materials consist of substances (for further information see IMDS Recommendation 001).

3.3 Substances

Substances describe a material. A material consists of one or various substances.

3.3.1 Substances to be reported

The minimum requirements for reportable substances are:

- main basic substances,
- all declarable substances included in the Global Automotive Declarable Substance List (GADSL),
- other substances may be marked as confidential or may be covered by wild cards (see IMDS Recommendation 001 for the allowed ranges).

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3.3.2 Reporting Limits

Reportable substances (see 3.3.1) must be reported if they are intentionally added. If they are present as an impurity they must be reported if they are above the threshold limits specified in the GADSL.

3.4 Common Modules for Automotive Glazing

The following Common Modules can be used to describe common materials or common parts for Automotive Glazing parts. These modules should only be used if the product meets the composition. If any of the reportable substances is present in the product, a new datasheet should be created.

3.4.1 Glass (IMDS ID n°: 859301): For Sheet Glass in accordance with EN 572-1 only

| Sheet glass (Standardmaterial f Silicon dioxide Calcium-oxide | ior basic soda lime silio | Type | Material (MDS) |
|---|-----------------------------|---|--|
| | 69-74% | ID / Version | 859301 / 2.00 |
| | 5-14% | MDS Supplier | IMDS-Committee |
| Disodium-oxide Magnesium-oxide Aluminium oxide Misc. | 12-16% <6% <3% <5% | Name Trade name Material-No. Symbol Classification Norms/ Standards | Sheet glass (Standardmaterial for basic soda lime silicate glass products) Ceramics / glass EN 572-1 |

Note 1: The usage of wider ranges is only allowed in this special case. **Note 2**: Miscellaneous cannot cover any reportable oxide.

3.4.2 PVB-Interlayer (IMDS ID n°: 9177189), e.g. for laminated safety glass

| PVB-Interlayer for laminated glas PVB PVB Plasticizer Pigment portion | 55 | Type | Material (MDS) |
|---|--------|---|---|
| | 69-80% | ID / Version | 9177189 / 1.00 |
| | 20-30% | MDS Supplier | IMDS-Committee |
| | <1% | Name | PVB-Interlayer for laminated glass |
| | | Trade name Material-No. Symbol Classification Norms/ Standards | Plastics |

Note: The usage of 20-30 % Plasticizer basic substance is only allowed in this special case. "Plasticizer" and "Pigment portion" cannot cover any reportable substance.



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3.4.3 Silver Printing (IMDS ID nº: 9123197), e.g. for antennas, heating, alarms

| Dibismuth-trioxide < Silicon-oxide 0. Zinc oxide < Diboron-trioxide < | 5-99% ID / Version 28% MDS Supplier .2-24.5% Name 28% Trade name 14% Material-No. 5ymbol Classification | Material (MDS) 9123197 / 1.00 IMDS-Committee Silver printing for glazing part) • (EN) • Ag Others |
|--|---|--|
|--|---|--|

Note 1: The usage of wider ranges is only allowed in this special case. **Note 2**: Miscellaneous cannot cover any reportable substance.

3.4.4 Glass enamel (IMDS ID n°: 9126367), e.g. for ceramic screen printing

| Glass enamel for glazing part | <76% 13-66.5% <76% <38% <28.5% 5-35% | Type ID / Version MDS Supplier Name Trade name Material-No. Symbol Classification | Material (MDS) 9126367 / 1.00 IMDS-Committee Glass enamel for glazing part) • (EN) • Bi2O3 Ceramics / glass |
|-------------------------------|---|--|--|
|-------------------------------|---|--|--|

Note 1: The usage of wider ranges is only allowed in this special case. **Note 2**: Miscellaneous and Pigment portion cannot cover any reportable substance.

3.4.5 Electrical Connector (to be used up to 4 g maximum)

Electrical connector (less than 4 g), Semi component (IMDS ID n°: 9129105)

| Electrical connector for glazing parts Copper 88% Copper 100% Solder for electrical connectors 12% Tin 25% | Type ID / Version MDS Supplier Article Name Item-/Material-No | Semicomponent (MDS) 9129105 / 1.00 IMDS-Committee Electrical connector for glazing parts |
|--|---|---|
| Lead 62% Bismuth 10% Silver 3% | Development Sample Report | Г |

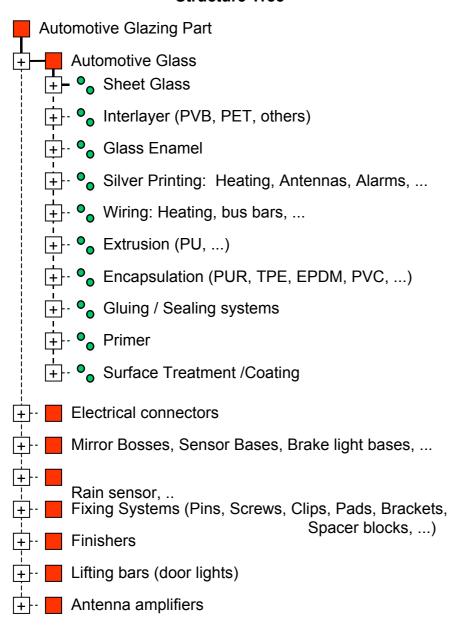
Note: Up to 4 g the connectors are very similar => they can be described the same way. Above 4 g, a detailed structure tree should be reported.

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4 Examples

The following structure tree gives an example for structuring an Automotive Glazing part within IMDS. Necessarily an Automotive Glazing part consists of Sheet Glass. Other materials or parts should be added according to the structure tree if they are present.



Structure Tree

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5 This document is recommended by

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6 Release and Revisions

6.1 Release

The recommendation was first approved and released on January 27th 2004.

6.2 Revision

| Rev. | Date | Description / Reason | Originating Organization / Committee |
|------|-----------|------------------------|--------------------------------------|
| 02 | June 2005 | ILRS to GADSL | IMDS Material Services |
| 01 | 18.03.04 | Minor editorial change | IMDS Steering Committee |

7 Cooperation and Assistance

Peter Pennells, Glazing Consultant Marc Boulard, Saint Gobain Gilles Landry, Splintex Glaverbel Muriel Lepage, Toyota Werner Scholz & Carl-Ludwig Voss, Ford Motor Company Holger Willmann, Pilkington Automotive Oliver Heitmann, Ferro Danny Kil & Raymond van der Heijden, Johnson Matthey