

<p>Title:</p> <h2 style="margin: 0;">Bombardier Transportation Design for Environment (DfE) Standard Requirements</h2>																																
<p>Scope:</p> <p>This Standard shall be implemented in all Bombardier Transportation Divisions and Business Units.</p>																																
<p>Purpose / Summary:</p> <p>The Standard defines the Design for Environment (DfE) Standard Requirements for all articles supplied to Bombardier Transportation. This Standard is relevant for all articles and systems designed, purchased and manufactured at Bombardier Transportation.</p> <p>The DfE Standard Requirements are a summary of legal requirements and common industry standards.</p> <p>For preparation of project specific DfE requirements, including e.g. customer requirements, the DfE Requirements Template GRP-20-20-15-000096 shall be applied.</p>																																
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1 Introduction to this document

Design for Environment (DfE) standard requirements are valid for all systems and articles designed, purchased, manufactured or supplied to Bombardier Transportation (BT).

2 Document deliverables

This specification requires the following document deliverables:

- Material declaration, using the BT Material Declaration template GRP-20-20-15-015753 or other format as specified by BT;
- Derogation for a Declarable substance, using the BT Derogation template GRP-20-20-15-000016;
- Safety Data Sheet/Material Safety Data Sheet.

3 DfE requirements

3.1 Materials, recycling and waste

3.1.1 Material declaration

A material declaration shall be submitted for the article, using the BT Material Declaration Template, GRP-20-20-15-015753, or other format as specified by BT.

The material declaration shall include information about:

- All included materials and substances, with weight and location;
- All included batteries, with type, quantity, weight and location.

The supporting BT document can be obtained through the Bombardier webpage:

- Material Declaration: www.bombardier.com/files/en/supporting_docs/GRP-20-20-15-015753.zip

3.1.2 Controlled substances

All articles shall conform to the provisions of the BT Standard on Controlled Substances, GRP-20-20-15-000014.

A substance defined as a Prohibited Substance, shall not be used in the article. A substance defined as a Declarable Substance shall not be used in the article, unless written permission is obtained, using the BT Derogation Template, GRP-20-20-15-000016.

The supporting BT documents can be obtained through the Bombardier webpage:

- Controlled Substances: www.bombardier.com/files/en/supporting_docs/GRP-20-20-15-000014.zip
- Derogation : www.bombardier.com/files/en/supporting_docs/GRP-20-20-15-000016.zip

3.1.3 Safety Data Sheet

Safety Data Sheets/Material Safety Data Sheets shall be provided for chemicals or chemicals contained in the article.

3.1.4 Recycling and waste

Plastics article with a mass above 0.1 kg shall be marked, according to ISO 11469.

Rubber article with a mass above 0.1 kg shall be marked, according to ISO 11469 and ISO 1629.

3.2 Batteries

Batteries included in the article shall be specified with type, quantity, weight and location, using the BT Material Declaration Template, GRP-20-20-15-015753, or other format as specified by BT.

4 Definitions and Abbreviations

<u>Term</u>	<u>Definition</u>
DfE	Design for Environment
ISO	International Organization for Standardization

5 Reference documents

<u>Doc ID-number</u>	<u>Title</u>
GRP-20-20-15-015753	Bombardier Transportation Material Declaration Template
GRP-20-20-15-000014	Bombardier Transportation Controlled Substances
GRP-20-20-15-000016	Bombardier Transportation Derogation for a Declarable Substance
ISO 1629	Rubber and lattices – Nomenclature
ISO 11469	Plastics – Generic identification and marking of plastics products

6 Approval Information

Prepared:	Sara Paulsson Manager Centre of Competence DfE	e-approved	2011-06-08
	Author	Signature	Date (yyyy-mm-dd)
Released :	Michael Schemmer Senior Director HSE & CSR	e-approved	2011-06-20
	Process owner	Signature	Date (yyyy-mm-dd)

7 Revision Log

Revision	Date of Release	Description of changes
0	2010-07-02	First issue
1	2011-06-20	Introduction of the new term on Controlled Substances and new requirements on batteries