

# Guidance on Material Datasheet creation for the BMW Group in IMDS

## 1. Intention

This document shows the BMW specific requirements for the creation of preliminary and final material datasheets (MDS) within the International Material Data System (IMDS). It also gives advice on the correct structure of material data sheets. Laws, guidelines and IMDS recommendations remain unaffected by this guidance.

## 2. General advices for creation of material data sheets

Material data sheets are compulsory to comply with legal requirements and the documentation to this. The lack of accepted datasheets can e.g. endanger the type approval of vehicles.

According to BMW terms and conditions for purchasing the supplier is obliged to submit material data sheets via IMDS to BMW for every supplied part. According to the supplier information from 6<sup>th</sup> August 2012, BMW reserves the right to assign a chemical analysis of the part, if data are not delivered in time. The supplier has to bear the costs in this case (see BMW b2b portal, business letters).

Providing a material data sheet in IMDS there is no need to create a material data sheet as a paper based copy. Material data sheets have to be created for spare parts, motor cycle parts, technical equipment like satnav systems, bikes, electric cars for children, etc. too.

If parts are supplied by different facilities with different sub suppliers, separate MDS have to be sent for each facility. This issue should be taken into consideration when entering the supplier code.

Material data sheets are compulsory to comply with legal requirements!  
Only the IMDS ID of already accepted MDSs should be entered in RMT and IPQ!

### 2.1 Creating and Sending of material data sheets

Starting one month after the nomination of the supplier a preliminary (see point 2.6) or a final material data sheet has to be sent to BMW. Final material data sheets have to be sent to BMW between order and first sampling. If final data sheets are sent in an early stage up to 8 month before SOP the creation of preliminary data sheets is no longer necessary.

When creating MDSs it should be taken into consideration that it could take some time till the MDSs are accepted by BMW. If the MDSs is submitted too late it could lead to a delay of the first sampling process.

The first MDSs has to be submitted one month after the nomination of the supplier!

## 2.2 Editing of material data sheets

In case after creation and sending a MDS the weight or composition of the part change in a way that the tolerances of the sent MDS are not met anymore, the **MDS has to be updated** (e.g. weight deviation >5%).

If you have to rework a material data sheet without a change of the part number please **do not create a copy** with a new IMDS ID but use the **option “new version”** instead.

There is no need to create a new material data sheet if the **alteration index AI** of a part number increases **without a change of composition or weight**. Please use the IMDS ID and version of the already accepted material data sheet for the RMT or IPQ record of the new part. The new part number/AI will then be linked to IMDS ID/version you provided by the BMW IMDS Team.

For electronic control units ECU it is common that new part numbers are assigned for every integration level with a different software. In this case the IMDS ID of the accepted MDSs for the original part number could be entered, if the MDS still meets the tolerance, as mentioned above. Suppliers could request to link part numbers by sending a list according point 9 to [IMDS-Team@bmw.de](mailto:IMDS-Team@bmw.de).

Before submitting MDSs get sure that the MDSs are up to date and according to current recommendations and BMW guidance to avoid rejection.

If the AI increases without relevant changes to the MDS the IMDS ID of the already accepted MDS could be entered in RMT/IPQ!

## 2.3 Parts in different colors

Instead of creating MDSs for several colour versions, it is possible to **specify a representative MDS** for all colours. The requirement is that the representative MDSs covers all actual ingredients of every colour version.

If the ingredients of the colour versions differ too much from each other (e.g. there are further declarable substances) and therefore cannot be covered by appropriate wildcards and tolerances, a separate MDS has to be created. If there are explicit pigments (like e.g. carbon black or iron oxide) in the MDS instead of using the wild card “pigment portion, not to declare” the MDS cannot be linked.

Create the representative MDS for the part number, which is used for the first sampling or use the all colour number. The ID/version of the representative MDS has to be entered in the first sampling record (ISIR) (see point 7).

The list of the part numbers that are covered by the representative MDS has to be sent to BMW IMDS Team ([IMDS-Team@BMW.de](mailto:IMDS-Team@BMW.de)). This list has to contain partnumber, AI with the associated IMDS ID / version.

Identical parts with different colours could be covered by one IMDS entry under certain conditions!

## 2.4 Parts included in a scope of delivery

If several parts are subjected together to the first sampling as a scope of delivery, please create a MDS for the complete scope of delivery (without packaging). Please give the ID and version of this MDS on the initial sampling report.

If parts of a scope of delivery have BMW part numbers, additional MDS have to be sent for these parts.

Scopes of delivery have to be created according to an assembly!  
Additional MDSs for the separate parts have to be created if they have BMW part numbers!

## 2.5 Multivariate parts (wire harnesses, seats)

The creation of material data sheets for multivariate parts can be minimised to representative material data sheets in coordination with the BMW IMDS Team.

## 2.6 Preliminary material data sheets

The preliminary material data sheets have to be created according to Recommendation 023. They have to be sent by the supplier without request of the BMW Group (see point 2).

Unlike final material data sheets the preliminary material data sheets can consist of incomplete materials where necessary. The requirements for the other data concerning correctness, completeness and bindingness are the same as for final material data sheets. Incomplete material data sheets have to be marked as 'preliminary MDSs.

This mark 'preliminary MDSs does **not** mean that a development part, prototype, etc. is sampled. It means that the material data sheet for a part is sent in an early phase of development and that information e.g. on material might not reflect the final stage. There is no need to create a material data sheet for prototypes or samples!

Prohibited and declarable substances according to GADSL / GS93008 have to be specified. Ensure that the part is conform to current legislation.

If the material data sheets are created as preliminary ones and the exact data of materials is still missing, the ProtMat-materials of the IMDS-Committee should be used (Recommendation 023).

BMW prefers the creation of final material data sheets (see point 2.1).

Preliminary material data sheets cannot be used for the Initial Sample Inspection Report. For ISIR they have to be edited and sent to BMW as final MDS in time. A certain time for processing at BMW should be taken into consideration.

Preliminary MDSs cannot be used for first sampling process (ISIR)!

## 2.7 Handling of material data sheets

Sending a MDS to BMW the button "**send**" should be chosen instead of "propose". (Do not "release internally" beforehand). Forwarded MDSs can only be proposed.

Rejected MDSs should be edited and resubmitted as soon as possible. If there are further questions the person given in the reason for denial should be contacted.

**Delete** rejected MDS, which are not required anymore or to which there is already a newer accepted version. Accepted MDSs will thereby not be affected.

The option "send" should be used to submit the MDS instead of "propose"!

## 2.8 Subcomponents with BMW part number

If there is a BMW part number for the subcomponent of an MDS it should be given on tab "details".

## 3. Formal Requirements

The following formal requirements **have to be fulfilled** in order to guarantee the correct data exchange with BMW internal systems. The required data must be entered into the appropriate **recipient specific fields** when **sending** or proposing the MDS. All data has to be extracted from the actual resp. sampling relevant BMW order form (see annex with order forms).

### 3.1 BMW Company ID in IMDS

The IMDS Company ID for BMW, Mini and Rolls Royce MC is **103**.

### 3.2 Description of parts

Must be the same as the description on the BMW order form (see annex with order forms).

In the case of standard parts, the standard must be indicated behind the BMW name (except when the standard is already indicated in the BMW name).

The size of standard fasteners should be indicated

E.g. hexagon head screw ISO 4014-M12x50-8.8-ZNS3

### 3.3 Part/Item No.

The BMW part number consists of 7 digits (new part numbers can also contain capital letters). Additions to this number separated by a dot or slash must not be filled in IMDS. (Do not use blanks in between digits, see figure 1 and annex with order forms.)

E.g. Part/Item No.: 1234567 or 1A23B45

### 3.4 Drawing dated

The Alteration index (AI) given in the order form must be filled in here (see figure 1 and annex with order forms). The date cannot be entered.

E.g. Drawing dated: 09

### 3.5 Drawing change level „NAEL“ (see also KM-Nr. in the order form)

Only the NAEL (New Release/Change List NRCL) is allowed in this field.

The NAEL is a combination of 6 alphanumeric characters. (See figure 1 and annex with order forms.)

E.g. Drawing Change Level: EKM62N

### 3.6 Supplier code

The BMW supplier code has to be filled in the appropriate field. BMW supplier code consists of a 6 digits number followed by a dash and two more digits. Please fill in all 8 digits (including the dash), do not use blanks. (See figure 1 and annex with order forms.) Do not use the DUNS number.

E.g. Supplier Code: 999999-10

**Details**

**Transfer Information**

Company: BMW AG [103]

Organisation unit: -

Recip. Status: edit mode

Supplier Code: 123456-10

Name: Sample part

Part/Item No.: 1234567

Transmission/Check Date: not available

Forwarding allowed:

**Drawing**

Drawing No.: 1234567

Drawing dated: 01

Drawing Change Level: 1TEST2

**Purchase Order**

Purchase Order No.:

Bill of Delivery No.:

**Report**

Report No.:

Date of Report:

Figure 1: Example for the entry of recipient data when sending a MDS to BMW

#### 4. Usage of suitable materials

Please pay attention to the correct classification of the materials according to VDA 231-106. For metallic materials give the material number according to standards. The usage of materials created by the IMDS Committee, Steel & Iron List and ILI is recommended. Plastic materials without the declaration of additives will be rejected.

Materials which contain of 100 % basic polymer only will be rejected!

#### 5. Concentrations of basic substances

Limits of legal restrictions for concentrations of basic substances and maximum sums for wild cards must not be exceeded. Therefore the maximum value is considered to be relevant for checking datasheets.

The allowed limits for the deviation of the measured and calculated weights are as following:

Weight of the component (subcomponent) X	maximum allowed deviation in %
X < 1 g	100
1 g ≤ X < 100 g	10
100 g ≤ X < 1 kg	5
1 kg ≤ X < 10 kg	2
10 kg ≤ X < 100 kg	1
X ≥ 100 kg	0,5

If components (e.g. raw parts) lose weight in processes like drilling or milling, they have to be created or requested as a semi component. A compensation of the loss in weight through an excessive tolerance range is not acceptable.

## 6. Recyclate information

Information to content of recycled material in materials with classification 5.1, 5.1.a/b, 5.3, 5.4.1 and 5.5.2 with more than 25 g is compulsory.

## 7. MDSs for RMT (risk management parts) or IPQ (integrated product quality) for initial sampling

For the first sampling process only **accepted** final material data sheet can be used. Preliminary MDSs cannot be used.

If the alteration index increases and there is no relevant change of the weight, the materials and composition of the part, the IMDS ID of the last already accepted MDS could be used for ISIR (see point 2.2). The MDS may not be older than 5 years and the distance between the alteration indexes not more than 5. Else a new version of the MDS has to be created.

### **RMT:**

Enter the IMDS ID and Version in RMT (via b2b-portal) under the point “sample check” according the following example:

IMDS-ID/Version 123456789/1

### **IPQ:**

As it is a precondition to have an accepted MDS for a correct first sampling (ISIR), IPQ offers an IMDS ID by searching an accepted MDS with the same part number, alteration index and supplier code. This suggestion has to be confirmed and saved by marking the field “The correctness of the IMDS No. as stated is hereby confirmed”.

In IPQ the two different supplier codes for order supplier and production supplier can be given. One of them has to match the code in the MDS.

IMDS entries have to be accepted by BMW in due time before ISIR!

## 8. MDS Request

Since IMDS Release 4.0 it is possible to request material data sheets from suppliers via IMDS. BMW will use this feature to demand the MDS which are still missing. It has to be insured that the supplier edits the received requests. Please pay attention to this menu item. With the function in menu item “settings” it is possible to get an email when your company receives a MDS Request. Therefore point “MDS Request received” has to be activated. Furthermore the supplier is still responsible for providing preliminary and final MDS for the first sampling process in due time and without request (see point 2.1).

The requests should be edited under menu point “MDS Request” (see IMDS user manual point 4.3 MDS Request). In that case an optimal tracking of request can be assured. Furthermore the recipient data, given by BMW, can be taken over.

If part numbers should be linked a list should be sent to [IMDS-Team@bmw.de](mailto:IMDS-Team@bmw.de) according to point 9 instead of mentioning it in the remark when rejecting the requests.

If MDSs are not submitted in time till 15 month before SOP at the latest BMW reserves the right to create MDS requests at the suppliers!

**9. Linking of material data sheets**

It is possible to link material data sheets to already accepted ones in the BMW inhouse system, in order to for example link different color versions with a representative MDS. These links will be created automatically when there is a corresponding entry in RMT or IPQ.

If more part numbers should be linked an excel sheet according to the following example has to be sent to [IMDS-Team@bmw.de](mailto:IMDS-Team@bmw.de).

What should be linked			Supplier information		To which already existing mds should be linked		
Part number	required AI	Required NAEL	Supplier code	Facility code	IMDS Modul-ID	IMDS Version	Target Node-ID

The following mds cannot be linked:

- Colored parts which pigments are not given with wildcards.
- MDS which are older than 5 years.
- MDS which contain prohibited or restricted substances.
- MDS which contain obsolete application codes.
- a weight difference of more than  $\pm 5\%$ .

**10. Contact and further information**

Point 19.7 of the purchasing conditions of the BMW Group deals with the suppliers' responsibility to create material data sheets. Material data sheets have to be sent for all supplied parts. The BMW purchasing conditions can be seen via b2b portal point "Department" – "Purchasing / direct material".

For all questions or the submission of the list of part numbers (point 2.3) please use the general email address:

**[IMDS-Team@bmw.de](mailto:IMDS-Team@bmw.de)**

Notice:

For questions concerning datasheets please give your **IMDS-company-ID** when contacting the MDS-Division. This simplifies the process of finding your specific data in IMDS.

**The BMW-company-ID in IMDS is: 103**

IMDS Recommendations are available on the IMDS main menu after the log-on.

Only for specific questions your BMW contact person is:

Dr. Karin Oldenburg-Nazaruk    [Karin.Oldenburg@bmw.de](mailto:Karin.Oldenburg@bmw.de)    +49 (0)89 382 46149



**BMW MANUFACTURING CORPORATION**



Supplier code

(Order No.)

BMW Manuf... Corp., P.O.Box 11000, Spartanburg, SC. 29304-4100

**PURCHASE ORDER**

7 654 321

Supplier No. 999999-10

ABCDEFG-AUTOMOTIVE  
ATT: CONTROLLER

246 MAIN STREET  
OTOWN, XY 00000  
USA

Order date  
09/05/00  
Amendment date

Amendment No.

Tel./fax (864) 989-001	Buyer 8944	Department TS-M-4	Page 2
Tel. No. (864) 989-007		BLONDINGER	
Tel. No.		Assistant	
Correspondence Code			

Confirmation of  
**TECHNISCHE AENDERUNG NAEL NR. EKM62N**

Model application  
**E53 ISIR**

Item	Description	Quantity	UM	Price per PU USD	PU
------	-------------	----------	----	---------------------	----

SUPPLIERS ACCEPTANCE OF THE LATEST BMW DRAWING AS DEFINED BY THE PART NUMBER AND CHANGE INDEX OF THIS ORDER. IF THE APPROPRIATE BMW DRAWING, SPECIFICATION AND/OR NORMS FOR THE PART NUMBER AND A. I. LEVEL SHOWN ON THIS PURCHASE ORDER HAVE NOT BEEN RECEIVED BY YOUR COMPANY OR MADE AVAILABLE TO YOU BY BMW MC/AG, PLEASE NOTIFY YOUR BMW MC/AG BUYER WITHIN 48 HOURS AFTER RECEIPT OF THIS PURCHASE ORDER.

ISIR PARTS AND OUTSIDE SHIPPING CONTAINERS TO BE IDENTIFIED WITH THE BMW PROVIDED ISIR LABELS.

**BATESVILLE WAREHOUSE**  
**ISIR LOCATION**          **ATTN.: ISIR DEPT.**  
BMW WAREHOUSE  
1221 BATESVILLE ROAD  
GREER, SC 29650

PLEASE ACKNOWLEDGE BY: 09/12/00

SUPPLIER ASSUMES THE RESPONSIBILITY TO PREPARE THE

- UM - Unit of Measure
- 00-piece
- 10-mm
- 11-inch
- 12-foot
- 13-m
- 14-yard
- 22-cm²
- 24-in²
- 26-Square Inch
- 28-m²
- 27-Square Feet
- 35-Centimeter
- 37-Cubic Inch
- 38-Cubic Feet
- 39-in³
- 40-g
- 41-Ounce
- 42-Pound
- 43-kg
- 46-lm
- 504
- 51-AM Pint
- 52-Qt. Pint
- 53-AM Quart
- 54-Qt. Quart
- 55-AM Gallon
- 56-Qt. Gallon
- 58-minute
- 59-hours
- 58-days
- 59-month
- 70-quarter
- 71-year
- 71-qt
- 72-pair
- R/L -
- Price per Unit
- 1-per 1
- 2-per 20
- 3-per 100
- 4-per 1000

**1 1 234 567 AI:03 5.00 00**

**ASSY XYZ-ANY-PART FRT M00**  
KM-NO DI: EKM62N C

**FIRM PRICE**  
**VALID FROM 08/31/00 TO 12/31/00**

**DELIVERY DATE**  
09/30/00

Part No.

Alteration index (AI)

Description

NAEL (NRCL)

Drawing index (DI or ZI)



**BMW AG**

**Lieferanten-Nr.**

Bayerische Motorenwerke AG, 80788 München, Deutschland

Lieferanten-Nr. **999999-10**

**BEISPIEL-AUTOMOTIVE GMBH  
-HERR BEISPIELMANN-  
HAUPTSTRASSE 15**

**D-0000 NULLINGEN**

(Bestellnummer)



**BESTELLUNG**

Best.Datum	7 654 321
25/08/03	Änderungs-Nr.
Änderungs-Datum	

Telex	089382-44754	Einkäufer	2338	Abteilung	EM-42	Seite	1
Telefon	089382-01234	<b>HERR MUSTERMANN</b>					
Telefon	089382-01235	<b>FRAU MUSTERFRAU</b>					
Ihre Zeichen							

Vorgang von <b>TECHNISCHE AENDERUNG NAEI NR. ELU32S</b>		Anforderungsnummer					
Pos.	Bezeichnung	Menge	ME	Preis pro PE	PE	EUR	

\*\*\*\*\* ERSTMUSTERBESTELLUNG \*\*\*\*\*

FUER DIESE BESTELLUNG GELTEN DIE NACHSTEHENDEN BEDINGUNGEN SOWIE DIE BMW EINKAUFSDINGUNGEN FUEER PRODUKTIONSMATERIAL UND KFZ - TEILE, BMW FERTIGUNGSMITTELBEDINGUNGEN, BMW VERSAND-, LIEFER- UND QUALITAETSSICHERUNGSVORSCHRIFTEN, BMW ANFORDERUNGEN ZUR UMWELTVERTRAEGLICHKEIT VON BMW PRODUKTEN, BMW ANFORDERUNGEN ZUR SOZIALVERANTWORTUNG, DAS BMW VERPACKUNGSHANDBUCH, JEWEILS IN DER AKTUELLEN FASSUNG, DIE WIR IHNEN BEREITS UEBERSANDT HABEN ODER DIS SIE IM INTERNET AUF DER BMW ZULIEFERER-HOME PAGE UNTER FOLGENDER ADRESSE EINSEHEN KOENNEN:

HTTPS://B2B.BMW.COM

WIR WEISEN DARAUF HIN, DASS VORGENANNTEN STANDARD-BEDINGUNGEN MIT GUELTIGKEIT AB DEM 23.05.2003 GEAEENDERT WURDEN.

ETWA MIT IHNEN SCHRIFTLICH GETROFFENE ABWEICHENDE ODER ZUSAETZLICHE BEDINGUNGEN GEHEN DEN VORGENANNTEN STANDARDBEDINGUNGEN VOR.

DIE LIEFERUNG IST BESTIMMT SOWOHL FUEER DIE FERTIGUNG DER BMW WERKE IM INLAND ALS AUCH IM AUSLAND EINSCHLIESSLICH DER ANGESCHLOSSENEN CKD-FERTIGUNGS-

- ME =
- Maßeinheit
- 00-Stück
- 10-mm
- 11-Inch
- 12-Foot
- 13-m
- 16-Yard
- 22-cm²
- 24-dm³
- 25-Square Inch
- 26-m²
- 27-Square Feet
- 28-Centimeter
- 27-Cubic Inch
- 38-Cubic Feet
- 39-m³
- 40-g
- 41-Unze
- 42-Pfund
- 43-kg
- 46-Tonne
- 50-l
- 51-AM Pint
- 52-Brit. Pinc
- 53-AM Quart
- 54-Brit. Quart
- 55-AM Gallon
- 56-Brit. Gallon
- 60-Minuten
- 66-Stunden
- 68-Tage
- 69-Monat
- 70-Quartal
- 71-Jahr
- 91-Satz
- 92-Paar

**Sach-Nr.**

**Änderungsindex (AI)**

**Benennung**

1 234 567 AI:09  
**ZB BEISPIELTEIL VL FACELIFT XY**  
 Z-HINW: 1 234 500 KM-NR ZI: ELU32S M  
 ALLE FA... EN-NR: 1 234 550

(Zeichnungshinweis)

IS 31/12/0

**NAEL**

(Zeichnungsindex: ZI)

- PE =
- Preis-Einheit
- 1-per 1
- 2-per 10
- 3-per 100
- 4-per 1000

Order form 1 (English, official order) and 2 (German, official order) with BMW-specific data to be filled in when sending a MDS

Description		Part No.	
Beispiel-Automotive GmbH		LAB-Stamm..: L P123123100 / 100200/003	
<b>ZB Beispielteil VL Facelift XY 1 234 567</b>		<b>BMW AG, 002</b>	
<b>BMW Dingolfing</b>		<b>F 29.08.01 E7K44S-09 BMW AG, 26</b>	
am	geliefert	Liefer-FZ	Losgrösse.....
17.07.03		KO	Vorlaufzeit...: 1 Tage
24.06.03	290	640 RE	Prod.Aufträge.: St
15.08.03	200	840 RE	Reserviert....:
22.08.03	600	1.440 RE	Lagerbestand..: 255
12.09.03	400-	1.040 F	IN Lieferung...: 110 17.09.03
L.Änd: MUSTERFRAU - 12.09.03			
SaBe.: Mustermann			
AuTe.: KEIN Ausla			
BWK.: Marta Mustermann			
Index: ELU32S-09			
KdZNr:			
VwKz.: Serienteil			
AnInt: KEINE Vereinbarung			
(Order No.)			
LS-Nummer	Datum	geliefert	Liefer-FZ
			AbBn.: 7654321
			7654321
			FeFr: 1 1
			MaFr: ..
F1: Zurück F2: Bestandsauswahl F5: INFO-Tool F24: Weitere			

Order form 3 (German, remote data transmission order) with BMW-specific data to be filled in when sending a MDS

Remark

The remote data transmission order does not contain all information of the official order form.

**10.1 Changed documentation**

short description of change	Issue level	Date	Name
	0	April 2014	Dr. Oldenburg-Nazaruk
System changes, new timing requirements, assistance for work	1	September 2017	Dr. Oldenburg-Nazaruk