MATERIALS PASSPORTS INFORMATION REFERENCE GUIDE

Materials passports are identity cards for materials and products within a built asset.

They support the data management process by digitally storing relevant information, which should be updated as a lifecycle document over the materials' life. Building on the materials passport practical **quide**, this quide identifies key information that could be included in a materials passport, why this information should be included, and at what stage this can be collected. The information outlined in this guide can be used for both new and reclaimed materials to encourage the reuse of materials and products once they have reached the end of their lifespan in their current asset.

This guide is mainly aimed at clients, design teams, contractors, and manufacturers, and is intended to be used as a starting point for collecting information on materials and products. It outlines the way in which materials passports will be most beneficial, and why. Materials passports will be project and client-specific, hence an early review in the initial project stages is strongly recommended to understand what data collection is needed to support objectives such as circularity and sustainability aims. Note that the information provided is not intended to be an exhaustive list nor absolute requirements, but an informed starting point for information collection to be adapted to individual circumstances.

Standards are being developed in the EU for materials passports in light of the **EU's Ecodesign for Sustainable Products Regulation** (ESPR), from 2024, which includes a requirement for a **Digital Product Passport** (DPP). However, there is currently a variety of suggestions regarding what could be included in a materials passport. This guide suggests which data and information is considered essential, recommended, and optional to include in a materials passport. This has been informed by current guidance on materials passports as well as input from the **UKGBC Circular Economy Forum** and topic experts. A list of references is collated at the end of this document.

KEY FOR INFORMATION:



Basic Information	 Unique identifier. Physical and technical information. Manufacturer information. Health and safety data, e.g. Fire, VOCs. Warranty information. Datasheets. Product location. Images.
Circular Economy Information	 Material composition Deconstructability/ Demountability. Information on previous use. Expected lifespan. End-of life scenario. Current condition.
Sustainability Information	 Environmental information (Carbon, water use etc). Toxicity. Sustainability certifications.
Product Specific Information	 Certification and testing. Maintenance instructions. Maintenance log. Technical data (acoustic, thermal, strength grading, U value, G value etc). Cleaning instructions.

TABLE 1: Summary of information for a materials passport

Basic Information

Key product information defining fundamental characteristics of the material or product.



Data Type	Description of the information to include	Who to collect the information from	Purpose	Recommended RIBA stage to collect and update
★ Unique Identifier	Different approaches available, such as: • Uniclass. • Global Trade Item Number (GTIN). • QR code or similar.	Designer.Contractor.Manufacturer.	To clearly identify a specific component or element used in the building.	Stage 4/5.
★ Physical and Technical Information	 Description of material/product Dimensions (Length, width, depth) Weight/Load. 	• Manufacturer and/or designer.	Provides information of size and loading to support future reuse.	Stage 4/5.
Manufacturer Information	 Manufacturer name and product codes. Contact details. Universal product code. 	• Manufacturer.	Retain accurate information about the product.	Stage 4/5.
★ Health and Safety Information	 Fire Certificates. VOCs. COSHH/safety data sheets. 	Manufacturer.Contractor.	Meets CDM regulation and British Standards (or equivalent).	Stage 4/5 Updated as applicable.
 Warranty Information 	Warranty coverage and length.	• Manufacturer/installer.	Warranty information facilitates insurability in subsequent life cycles.	Stage 4/5 Updated as applicable.
✓ Datasheets	As provided by the manufacturer. Information on technical features such as fire, material classification, storage, safety information, operation and maintenance.	• Manufacturer.	Provides general important information and helps enable reuse.	Stage 4/5 Updated as applicable.
 Product Location 	Marked up general arrangement plan (floor/level) or elevation 3D model (BIM).	 Designer. Pre-demo/strip-out auditor. 	Identification of product in the built context.	Stage 4/5 Depending on the material this may require updating.
Images	Profile picture of the physical product. This could include onsite preinstall and install (in-situ) pictures. It might also illustrate the current condition of the product.	 Manufacturer/supplier prior to installation. In-situ image on handover. Could also be taken from the pre-demo/ strip-out audit. 	Awareness of what the material looks like, current condition, and colour.	Stage 5. Updated as applicable.

Circular Economy Information This relates to information needed to extend the life of the material or product.



Data Type	Description of the information to include	Who to collect the information from	Purpose	Recommended RIBA stage to collect and update
★ Material Composition	Information of materials used in the product.	• Manufacturer	To understand the properties of the product including demountability, recyclability, and toxicity.	Stage 3 or 4.
Deconstructability/ Demountability	 Deconstruction information. Disassembly guide and technical information. 	 From Manufacturer, Designer/Design Engineer. Contractor once installed. 	Information on how to deconstruct the item from in-situ to recover it undamaged and at highest value to be able to reuse it.	Stage 4/5. Updated as applicable.
 Information on previous use 	Information related to previous use and provenance if applicable.	Facilities Manager.Owner.Maintenance log.	To understand potential for reuse, and aid with testing, warranty, or re-manufacturing.	Stage 3 or 4.
 Expected Lifespan 	Expected period of useful service life of the product or material.	• Manufacturer.	Lifespan information ensures components can be used to the maximum to their expected service life, avoiding premature disposal.	Known from early design Stage 4. Updated as applicable.
✓ End-of life Scenario	 Information on possible options after the product or material has reached the end of its useful service life. Design for disassembly. Takeback schemes. Reuse options. 	 Manufacturer. Maintenance/facilities management log book. 	Identifying the best possible pathway for reuse, recycling or disposal.	Part of product specifications, further options from the design team incorporated at Stage 2-4, and updated as required.
✓ Current Condition	 Description of the material or product's current condition; including any damage or flaws, as well as coatings, finishes etc. Photo. 	• Facilities Manager/ Building Owner.	To determine whether it is in a suitable condition for reuse.	Stage 0/1 for redevelopment.

Sustainability Information This information is needed to understand how sustainable the material is and can be used to inform design decisions.



Data Type	Description of the information to include	Who to collect the information from	Purpose	Recommended RIBA stage to collect and update
Environmental Information	 Information on the environmental impact of the material/product. EPD/LCA information relating to carbon impact, water use, ecological impacts. 	 Manufacturer/Designer. Engineer. 	Allows prioritising sustainability- driven decisions. Allows for comparative analysis of low-carbon options.	Stages 0-5.
✓ Toxicity	 Chemical properties of the product or material. Presence of any toxins such as PFAS, VCOs, Phthalates, etc. 	• Manufacturer.	Informs use limitations and end-of- life scenarios, such as recyclability or adequate treatment. Allows phasing out materials that are considered toxic. Helpful for certifications such as WELL .	Stage 4/5.
 Sustainability Certifications 	 These are often specific to a material, such as FSC and PEFC for timber, ASI for aluminium, BES 6001, Cares sustainable steel, ISO14001, Cradle 2 Cradle etc. Information should also be given if the material or product is related to a buildingwide sustainability assessment, rating, or certification, such as BREEAM, LEED, or WELL. 	 Manufacturer. Designer. Engineer. Client. 	Provides assurance that a manufacturer's operations, environmental and social credentials are in place and are being continually monitored and improved.	Stages 0-5.

Product Specific Information This information is likely to vary between materials and products, but gives an indication of what may need to be included.



Data Type	Description of the information to include	Who to collect the information from	Purpose	Recommended RIBA stage to collect and update
 Certification and Testing 	Depending on the product, these might include: • Acoustic certificates. • Air tightness. • Commissioning. • Thermal testing - thermographic. • Air quality, VOC results. • Lighting control. • Fire alarm. • Sprinklers.	Contractor.Manufacturer.	Certified results of the material either pre-installation or post-installation.	Stage 5/6. Depending on certification and testing, this may not be available until commissioning stage of construction. Updated as applicable Stage 7.
 Maintenance Instructions 	How to look after and protect the material to prolong its service life.	 Operation & Maintenance manual (O&Ms). 	Provides information about proper maintenance regimes, allowing the material or product to be used to the full extent of its lifespan and beyond.	Stage 4/5.
Maintenance Log	List details about inspections, faults, repairs and remediation undertaken, when and by whom.	 Operation & Maintenance manual (O&Ms). Maintenance log. 	Provides a history of the material and could highlight any trends or issues. Assures suitability for reuse and facilitates insurable if free of issues.	Stage 4/5. Available from the end of the previous life at Stage 6.
Technical Data	Acoustic, thermal, strength grading, U value, G value etc.	 Manufacturer Data and Engineers. 	Ensures correct and adequate use.	Stage 4/5.
 Cleaning Instructions 	 Provides information on products and cleaning methodology. May include COSHH data sheets. 	 Operation & Maintenance manual (O&Ms). 	Provides information about proper cleaning regimes, allowing the material or product to be used to the full extent of its lifespan and beyond.	Stage 4/5 Available from the end of the previous life at Stage 6.

References This is a list of resources we have reviewed for this guidance.



This document is produced for general guidance only. While the guidance has been produced in good faith, it does not constitute advice and UKGBC and the authors of this guidance do not represent or warrant that the content is suitable for your purposes, accurate, complete or up to date.

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