

# IMPLEMENTATION SPECIFICATION FOR ROAD WORKS

## GREEN PROCUREMENT CRITERIA



*This Specification Series implements the requirements in  
Subsidiary Legislation 499.57, Part II (New Roads and Road  
Works Regulations) in accordance with the Agency for  
Infrastructure Malta ACT XXVIII, CAP. 588, Part I*

**Date:** July 2022  
**Version:** v 1.0

## **Road Design, Construction and Maintenance**

### **Incorporation of recycled content in concrete and masonry**

A minimum of 15% by weight of recycled content, re-used content and/or by-products shall be incorporated for the sum of the main road elements in the table below:

New construction or major extension	Maintenance and rehabilitation
<ul style="list-style-type: none"><li>• Sub-grade, including earthworks and ground works;</li><li>• Sub-base</li><li>• Base, binder and surface or concrete slabs</li></ul>	<ul style="list-style-type: none"><li>• Base, binder and surface or concrete slabs.</li></ul>

The recycled content as well as the re-used content shall be calculated on the basis of an average mass balance of re-used, recycled materials and/or by-products according to how they are produced and delivered to site:

- For each ready mixed batch from which deliveries are dispatched to the construction site in accordance with standards on:

- Aggregates EN 13242, EN 13285;
- Asphalt pavement EN 13043, EN13108-1, EN 13108-2, EN 13108-3, EN 13108-4, EN 13108-5, EN 13108-6, EN 13108-7, EN 13108-8;
- Concrete pavement EN 206, EN 12620, EN13877;
- Hydraulically bound granular mixtures EN 14227 part 1 to 5;
- Stabilised soil EN 14227 part 10 to 15

- On an annual basis for factory made slabs and elements with claimed content levels in accordance with EN 12620 an EN 206, EN 13877 and national legislation.

### **Verification:**

A signed declaration of the above shall be provided at evaluation stage. Compliance to the above shall be verified post award by the Contracting Authority.

## **Maintenance and operation**

### **Demolition waste audit and management plan**

A minimum of 55% by weight of the non-hazardous waste generated during demolition, including backfilling, shall be prepared for re-use, recycling and other forms of material recovery. This shall include:

- (iii) Concrete, RAP, aggregates recovered from the main road elements;
- (iv) Materials recovered from ancillary elements.

Backfilling shall not be allowed in greenfield sites outside the roadway. Backfilling in permeable areas of the roadway shall be realised only with excavated materials and soils. Re-used, recycled and recovered materials shall only be used for backfilling in impermeable areas of the roadway.

The main construction contractor or the DB contractor or the DBO contractor shall carry out a pre-demolition audit in order to determine what can be re-used, recycled or recovered. This shall comprise:

- (i) Identification and risk assessment of hazardous waste;
- (ii) A bill of quantities with a breakdown of different road materials;
- (iii) An estimate of the % re-use and recycling potential based on proposals for systems of separate collection during the demolition process.

The materials, products and elements identified shall be itemised in a Demolition Bill of Quantities.

### **Verification:**

The main construction contractor or the DB contractor or the DBO contractor shall submit a pre-demolition audit that contains the specified information. A system shall be implemented to monitor and account for waste production. The destination of consignments of waste and end-of- waste material shall be tracked using consignment notes and invoices. Monitoring data shall be provided to the contracting authority.

## Road Markings

### Product hazard labelling

The final product shall not be classified as being acutely toxic, a specific target organ toxicant, carcinogenic, mutagenic or toxic for reproduction, hazardous to the environment, in accordance with Regulation (EC) No 1272/2008 (CLP Regulation), as indicated in Table 13.

*Table 13 Final product classification*

Characteristic	Classification Limits
Acute Toxicity	Acute Tox. 1 Acute Tox. 2 Acute Tox. 3
Specific target organ toxicity – Repeated exposure specific target organ toxicity – single exposure	STOT RE 1 or 2 STOT SE 1, 2 or 3
Carcinogenicity	Carc. 1A Carc. 1B Carc. 2
Germ cell mutagenicity	Muta. 1A Muta. 1B Muta. 2
Reproductive toxicity	Repr. 1A Repr. 1B Repr. 2
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 or 2

## Hazardous ingredients

The paint shall be compliant with the restrictions presented in Table 5, which either restrict the presence of or limit the concentration of the indicated hazardous substances in the paint.

Table 5 Paint hazardous ingredient requirements

Ingredient	Restriction or upper concentration limit
Preservatives	Preservatives shall be non bio-accumulative <sup>1</sup>
Phthalates: Phthalates <sup>2</sup> identified as substance of very high concern and listed in the candidate list of the REACH Regulation 3 shall not be present in any paint or varnish preparations or formulations thereof.	0.1% w/w
Metals: Cadmium, lead, chromium VI, mercury, arsenic, selenium	0.010% w/w per metal or metallic complex/salt, as appropriate.

<sup>1</sup>An ingredient is considered bio-accumulative when  $\text{Log Kow} \leq 4.0$  or bio-concentration factor (BCF)  $\leq 500$

### Verification:

At tendering stage, the tenderer shall provide a signed declaration that the paint shall be compliant to the GPP criteria listed above.

Following award of the tender, the tenderer shall provide appropriate documentation confirming compliance with the criterion, namely:

- for preservatives: Safety Data Sheets for the product mixture.
- additionally for preservatives: a test report using OECD 305 Test Guideline can be used as an alternative to the Safety Data Sheet for the sole purpose of confirming that the preservatives used are nonbioaccumulative.
- for phthalates: Safety Data Sheets for the product mixture and/or a REACH Article 33(1) 6 declaration that is valid for the products to be supplied.

### **Content of hazardous ingredients in glass beads**

The glass beads used shall not contain arsenic, antimony and lead at individual concentrations exceeding 200 ppm.

#### **Verification:**

At tendering stage, the tenderer shall provide a signed declaration that the paint shall be compliant to the GPP criteria listed above.

Following award of the tender, the tenderer shall provide a test report verifying the concentrations of the specified substances present in the glass beads according to EN 1423 or equivalent.

### **Quality and durability of road marking system**

The tenderer shall demonstrate that the road marking maintains the minimum performance requirements, namely for night time visibility, day time visibility, skid resistance and erosion, after a defined number of wheel passages<sup>1</sup>, as specified by the procurer in the call for tender.

<sup>1</sup> Indicatively, a reasonable performance could be considered as 500.000 wheel passages, according to standards EN 1824 and EN 13197. If a higher level of performance is desired, then a higher number of wheel passages should be specified.

#### **Verification:**

At tendering stage, the tenderer shall provide a signed declaration that the paint shall be compliant to the GPP criteria listed above.

Following award of the tender, the tenderer shall provide a test report or the approval of a national test facility demonstrating compliance of the road marking system under the conditions appropriate to the contract and according to EN 1824, EN 13197 or equivalent. To ensure comparability, the contracting authority shall specify in the call for tender the test method to be used by all tenderers.

### **Use of road markings meeting the EU GPP criteria**

All work contracts shall be performed using road marking products that comply with the EU Green Public Procurement requirements as specified in Technical specifications for core criteria

of EU GPP – Section 4.3 Road markings.

**Verification:**

At tendering stage, the tenderer shall provide a signed declaration that the paint shall be compliant to the GPP criteria listed above.

Following award of the tender, the tenderer shall provide supporting documentation that the products used meet the criteria specified above

**Management of waste and unused road marking material**

The tenderer shall submit a waste management plan for road marking material leftover from the preparation of the substrate and application. The plan shall include:

- Where demarking needs to be conducted, an assessment for the potential hazardous content of road marking material to be stripped from substrates and, if a risk is identified, a method statement for mitigating the risk by safe handling and disposal.
- A method statement for on-site practices in the cleaning of equipment and the storage of waste and unused road marking material for safe disposal as hazardous waste.
- Measures to minimise waste and unused road marking material

**Verification:**

At tendering stage, the tenderer shall provide a signed declaration that the paint shall be compliant to the GPP criteria listed above.

Following award of the tender, the tenderer shall provide a documented waste management plan which shall include method statements for safe demarking, equipment cleaning and waste and unused road marking material handling and disposal, as well as the measures applied to minimise waste and unused road marking material.