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ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL
New Approach Industries, Tourism and CSR
Construction, Pressure Equipment, Metrology

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M/125 rev.1 EN

AMENDMENT TO:

MANDATE TO CEN/CENELEC

CONCERNING THE EXECUTION OF STANDARDISATION WORK

FOR HARMONISED STANDARDS ON

AGGREGATES

(M/125)

1. EXPLANATORY NOTE

The Construction Products Directive (89/106/EC) – CPD covers six essential requirements for construction products. In the original mandate and work programme these aspects were only partly taken into consideration, mostly due to a lack of data on existing requirements and/or lack of technical instruments to be harmonised in European standards.

Construction products could emit or contain substances that have been defined as “dangerous substances” under European Directives and national regulations. While the emission (or the content) shall be below any existing European and/or national threshold values (where the product is placed on the market), manufacturers and authorities need transparent and understandable schemes in place for the declaration of product performance in this respect in order to determine conformance of the product with these regulatory requirements. This requires harmonised standards for the declaration of the potential release (or presence in those cases where a substance is banned or content where it is not possible to measure releases) of dangerous substances from construction products. The test methods to support this declaration will be provided by CEN TC 351 following the requirements of the Commission’s mandate M 366.

To identify substances to be assessed¹, CEN TCs have to consider the current versions of EU Directives and notified national regulations.

Regulatory requirements to be referred to can be found:

- Commission's database on dangerous substances²;
- Indicative list indoor air/soil and (ground) water (DS 051)
- Annexes of amendment of mandate M/125

To facilitate the work of CEN product TCs, the attached annexes provide an inventory of substances/materials that are considered as the most relevant³ in the first phase for products covered under mandate M/103. It remains to the product TC to select the most efficient approach of identifying dangerous substances regulated and relevant for their specific products⁴.

However, the financial and technical burden of testing could in many cases be avoided if a clear definition and product declaration of a product and/or its intended use is introduced in a product standard. This could allow manufacturers and authorities to avoid any testing or to focus on a few relevant substances/components/materials for testing, while they could exclude certain substances/components/materials from their test schemes⁵.

2. OBJECTIVE

¹ Any substances identified in the original mandate M/125 have also to be included in the work programme following this amendment.

² <http://ec.europa.eu/enterprise/construction/cpd-ds/>

³ The term "most relevant" for substances/materials in the inventory as well as in the selection and reply of each product TC highlights the importance of a *fast and pragmatic approach* two step approach for the first generation of product standards covering ER 3. The focus in the inventory as well as in the selection and reply by CEN TCs is on the substances/materials which are

- most likely present in a product or will most likely emit from products;
- have been identified by regulators as risk for health and the environment;

To avoid that the standardisation work will be unnecessarily delayed by trying to cover less likely or less dangerous risks in the first generation, the first generation is supposed to cover the *majority* of risks and substances/materials, but allows for adaptations in subsequent five year reviews of the product standards.

⁴ However, the manufacturer, or his agent established in the Community, shall be responsible for the attestation that products are in conformity with the requirements of a technical specification. (Art.13 of the CPD)

⁵ Following this approach not all substances listed in a mandate have to be tested. Some substances can be excluded by description (i.e. "substance xy is not used in concentrations above 0.1 % w/w")

The objective of this mandate is for CEN to amend existing harmonised product standards (or standards under development) to cover ER3 requirements⁶ to an extent that will allow CE marked construction products to be placed on national markets without additional national requirements.

Note: It should be stressed that this exercise shall not duplicate the ongoing work in TC 351 and its links to product TCs. But to avoid later misunderstandings and complications that might lead to delayed publications of harmonised product standards and/or the use of CE marking the dialogue between specification writers and the Commission/regulators/experts should be facilitated and strengthened.

3. DESCRIPTION OF THE MANDATED WORK

The attached annex provides an overview on national notified regulatory requirements that have been linked by several experts of the Commission's expert group on dangerous substances to products covered under mandate M/125.

CEN (TC 154) has to assess the list and to take it completely into consideration when describing and justifying its selection of substances and their relevance in its work programme, in particular on the following aspects:

- If these substances may be present in products covered by mandate M/125 and in all existing harmonised product standards or harmonised product standards under development;
- If these substances are likely to emit from the above mentioned products and if these emissions are close to existing limit values in regulations referred to in this document⁷;
- If there is available data, particularly where the above mentioned products have been tested in the past on either content or emission of these substances by national authorities/bodies⁸;

Note: The work programme of the product TC will be used for further discussion in the EGDS between the Commission, national experts and experts of the product TC and TC 351.

CEN has to provide in existing harmonised product standards or harmonised product standards under development either

⁶ These ER-requirements include that the products put on a national market can fulfil the national legal requirements.

⁷ The possibility of excluding products, components or substances from testing will be dealt with in detail in another document describing a system of defining products "without testing" or "without further testing".

⁸ If products have not been subject to testing for dangerous substances (or specific substances now mentioned in this document have not been assessed in the past) will be helpful to assess the priority given by regulators or the lack of useful technical instruments for the assessment, but does not necessarily indicate that Member State authorities might not insist on these specific requirements during the development of a standard or *after* it has been finalised. Therefore, each substance should be assessed carefully by the TC and in case of doubt clarification should be requested from the Commission.

- clear and transparent definitions of products⁹ that will make further requirements for testing for dangerous substances obsolete or
- a set of clear and transparent requirements for product which will be laid down in product standards for these specific product families or relevant sub-families.

4. EXECUTION OF THE MANDATE

The standards resulting from this amended mandate will have to be delivered by no later than 12 months after the adoption of technical specifications developed under the mandate M/366.

After formal acceptance of the mandate, CEN will present to the Commission within 2 months a detailed proposal for the Work Programme. Having regard to the scope of this mandate this Work Programme will include

- a selection and clear indication of substances/materials indicated in the annexes of this mandate which are considered as relevant in products covered by mandate M/125, or a justification for excluding substances/materials of the attached annex from standardisation work in the relevant product TC;
- a list of all product standards considered to require declaration categories for the potential release or content of regulated dangerous substances to enable fulfilment of regulatory requirements;
- the timetable for the development and the publication of each amended standard; if not all regulated dangerous substances can be dealt with in one phase/generation, it should be explained how and when to handle the other substances and which steps still need to be taken.

Note: Due to regulatory requirements (e.g. the content of restricted and banned substances in construction products), content¹⁰ measurement/test standards may also be considered.

Content may also be used as screening method in FPC or as part of a “Without Further Testing” scenario.

After examination of the Work Programme and consultations with CEN, the Commission will endorse the timetable and the list of measurement/test standards or parts of measurement/test standards, which meet the terms of this mandate.

⁹ If necessary with regard to materials, constituents, admixtures, etc.

¹⁰ For other regulations than the CPD the content of substances in a product/materials is relevant. Therefore the characteristic to be considered can also, as pointed out in the Guidance Paper H, be the content of the dangerous substance in the construction product, when this is the only practicable or legally correct solution (e.g. when waste is used). Although the CPD deals in particular with the emission of dangerous substances, measurement methods based on content may help for example with regard to incoming materials (e.g. any material used in the production process, treated or not, be it raw materials or materials resulting from any previous use or production).

The terms of reference of the mandate may be subject to modification or addition, if necessary, following the consultation of the Standards and Technical Regulations Committee, where appropriate. Especially, when the Commission has endorsed the Work Programme, the annex will be updated with the corresponding parts of the endorsed Work Programme.

The Commission¹¹ may participate in standardisation activities as an observer and has the right to receive all relevant documents.

CEN will immediately inform the Commission of any problem relating to the carrying out of the mandate from within the Technical Committees.

In an annual review meeting CEN/CENELEC will inform the Commission about the progress of the work.

The formal acceptance of this mandate by CEN will initiate the standstill procedure referred to in article 7 of the European Parliament and the Council Directive 98/34/EC of 22 June 1998.

CEN will present the final drafts of the harmonised European product standards to the Commission for confirmation of compliance with this mandate at the latest in accordance with the timetable agreed between CEN and the Commission.

The text of the European standards shall be delivered to the Commission in the three working languages of CEN (English, French, German).

CEN will provide the titles of the standards in all the official languages of the European Union.

Organisations to be involved

As appropriate, CEN will invite the representative organisations of consumers' interests (ANEC), environmental protection (ECOS), workers (ETUI-REHS) and small and medium-size enterprises (NORMAPME) to take part in the standardisation work.

¹¹ This could also include assistance from the European Commission expert group on regulated dangerous substances.

Annex I to the amendment to Mandate M/125 "Aggregates" with respect to ER3 related requirements

NOTE: this is a general list of notified regulations which may relate to regulated dangerous substances and ER 3 but which also deals with other issues. TC 154 is asked to check through these and establish which regulations and which substances or properties are relevant to this specific task and to cover them in its standards. Further, in the below list of regulations, the different aggregate types are not always aligned with the definitions of types in the aggregate product standards so TC 154 is asked to adjust as appropriate.

Harmonised Standards under M/125 cited in the Official Journal of the European Union				
EN Number	Standard Title	Regulated field(s) of application	Requirements	Notified regulations.
EN 13139	Aggregates for mortar	bound use in mortar for structural engineering	<p>for recycled aggregates from crushed concrete and bricks</p> <p>Release: pH / electrical conductivity / chloride (Cl) / sulphate (SO₄) / arsenic (As) / lead (Pb) / cadmium (Cd) / chromium (Cr) / copper (Cu) / nickel (Ni) / mercury (Hg) / zinc (Zn) / phenol</p> <p>Content: hydrocarbons / PAH / EOX / PCB / ammonium-N / nitrite-N</p> <p>for other recycled aggregates and certain manufactured aggregates, (such as steel slag, municipal waste incineration slag, fly ash and bottom ash from co-combustion) additionally</p> <p>Release: turbidity / tendency to produce foam / AOX / antimony (Sb) / barium (Ba) / boron (B) / cobalt (Co) / chromium VI / molybdenum (Mo) / selenium (Se) / thallium (Tl) / tin (Sn) / vanadium (V) / cyanide, (CN⁻) / fluoride (F⁻) / PAH / naphthalene and methylnaphthalenes / highly volatile halogenated hydrocarbons / 1,2-dichloroethane / tri- and tetrachloroethene / chloroethene (vinyl chloride) / alkylated benzenes / benzene / ethylbenzene / toluene / xylenes / MTBE / nonylphenol / chlorinated phenols / hexachlorobenzene / chlorobenzenes / epichlorohydrin</p> <p>Content: TOC / arsenic / lead / barium / cadmium / chromium (total) / cobalt / molybdenum / nickel / mercury / selenium / thallium / tin / vanadium / zinc / chloride / cyanide / fluoride / sulphate / PAH / / PCDDs and PCDFs / highly volatile halogenated hydrocarbons / PCBs / hydrocarbons / benzene /</p>	2005-424-D, 2006-90-D, 2007-653-A

			ethylbenzene / toluene / xylenes / radioactivity	
EN 13055-1	Lightweight aggregates - Part 1: Lightweight aggregates for concrete, mortar and grout	bound use in concrete and mortar for civil and structural engineering (excluding public road construction)	<p>for recycled aggregates from crushed concrete and bricks</p> <p>Release: pH / electrical conductivity / chloride (Cl) / sulphate (SO₄) / arsenic (As) / lead (Pb) / cadmium (Cd) / chromium (Cr) / copper (Cu) / nickel (Ni) / mercury (Hg) / zinc (Zn) / phenol</p> <p>Content: hydrocarbons / PAH / EOX / PCB / ammonium-N / nitrite-N</p> <p>for other recycled aggregates and certain manufactured aggregates, (such as steel slag, municipal waste incineration slag, fly ash and bottom ash from co-combustion) additionally</p> <p>Release: turbidity / tendency to produce foam / AOX / antimony (Sb) / barium (Ba) / boron (B) / cobalt (Co) / chromium VI / molybdenum (Mo) / selenium (Se) / thallium (Tl) / tin (Sn) / vanadium (V) / cyanide, (CN-) / fluoride (F-) / PAH / naphthalene and methylnaphthalenes / highly volatile halogenated hydrocarbons / 1,2-dichloroethane / tri- and tetrachloroethene / chloroethene (vinyl chloride) / alkylated benzenes / benzene / ethylbenzene / toluene / xylenes / MTBE / nonylphenol / chlorinated phenols / hexachlorobenzene / chlorobenzenes / epichlorohydrin</p> <p>Content: TOC / arsenic / lead / barium / cadmium / chromium (total) / cobalt / molybdenum / nickel / mercury / selenium / thallium / tin / vanadium / zinc / chloride / cyanide / fluoride / sulphate / PAH / / PCDDs and PCDFs / highly volatile halogenated hydrocarbons / PCBs / hydrocarbons / benzene / ethylbenzene / toluene / xylenes / radioactivity</p>	2005-424-D, 2006-90-D, 2007-653-A

EN Number	Standard Title	Regulated field(s) of application	Requirements	Notified regulations.
EN 12620	Aggregates for concrete	bound use in road construction	<p>recycled aggregates and manufactured aggregates</p> <p>Release: pH / electrical conductivity / ammonium-N / nitrite-N / chloride (Cl) / sulphate (SO₄) / cyanide / fluoride (F) / AOX / DOC / PAH (EPA) / phenol / arsenic (As) / lead (Pb) / cadmium (Cd) / chromium (Cr) / chromate / copper (Cu) / nickel (Ni) / mercury (Hg) / vanadium (V) /</p> <p>zinc (Zn) / PAH / phenol / mineral oil hydrocarbons</p> <p>Content: EOX, TOC, lead, cadmium, chromium (total), copper, zinc, PAH, hydrocarbons</p>	2004-71-D, 1999-263-A, 2007-385-A
		bound use in concrete for civil and structural engineering (excluding public road construction)	<p>for recycled aggregates from crushed concrete and bricks</p> <p>Release: pH / electrical conductivity / chloride (Cl) / sulphate (SO₄) / arsenic (As) / lead (Pb) / cadmium (Cd) / chromium (Cr) / copper (Cu) / nickel (Ni) / mercury (Hg) / zinc (Zn) / phenol</p> <p>Content: hydrocarbons / PAH / EOX / PCB / ammonium-N / nitrite-N</p> <p>for other recycled aggregates and certain manufactured aggregates, (such as steel slag, municipal waste incineration slag, fly ash and bottom ash from co-combustion) additionally</p> <p>Release: turbidity / tendency to produce foam / AOX / antimony (Sb) / barium (Ba) / boron (B) / cobalt (Co) / chromium VI / molybdenum (Mo) / selenium (Se) / thallium (Tl) / tin (Sn) / vanadium (V) / cyanide, (CN-) / fluoride (F-) / PAH / naphthalene and methylnaphthalenes / highly volatile halogenated hydrocarbons / 1,2-dichloroethane / tri- and tetrachloroethene / chloroethene (vinyl chloride) / alkylated benzenes / benzene / ethylbenzene / toluene / xylenes / MTBE / nonylphenol / chlorinated phenols / hexachlorobenzene / chlorobenzenes / epichlorohydrin</p> <p>Content: TOC / arsenic / lead / barium / cadmium / chromium (total) / cobalt / molybdenum / nickel / mercury / selenium / thallium / tin / vanadium / zinc / chloride / cyanide / fluoride / sulphate / PAH / / PCDDs and PCDFs / highly volatile halogenated hydrocarbons / PCBs / hydrocarbons / benzene / ethylbenzene / toluene / xylenes / radioactivity</p>	2005-424-D, 2006-90-D, 2007-653-A

EN 13043	Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas	bound use in road construction	<p>recycled aggregates and manufactured aggregates</p> <p>Release: pH / electrical conductivity / ammonium-N / nitrite-N / chloride (Cl) / sulphate (SO₄) / cyanide / fluoride (F) / AOX / DOC / PAH (EPA) / phenol / antimony (Sb) / arsenic (As) / barium (Ba) / lead (Pb) / cadmium (Cd) / chromium (Cr) / chromate / copper (Cu) / molybdenum (Mo) / nickel (Ni) / mercury (Hg) / selenium (Se) / vanadium (V) / zinc (Zn) / mineral oil hydrocarbons / PCB</p> <p>Content: EOX / TOC / arsenic / lead / cadmium / chromium / copper, zinc / PAH / PCB / hydrocarbons</p>	2004-71-D, 2005-735-FIN, 2006-223-E, 2007-385-A
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EN Number	Standard Title	Regulated field(s) of application	Requirements	Notified regulations.
EN 13055-2	Lightweight aggregates - Part 2: Lightweight aggregates for bituminous mixtures and surface treatments and for unbound and bound applications	unbound use of any/all aggregates in contact with soil/groundwater and surface water	<p>inorganic parameters (for all aggregates):</p> <p>Release: antimony (Sb) / arsenic (As) / barium (Ba) / cadmium (Cd) / chromium (Cr) / cobalt (Co) / copper (Cu) / mercury (Hg) / lead (Pb) / molybdenum (Mo) / nickel (Ni) / selenium (Se) / tin (Sn) / vanadium (V) / zinc (Zn) / bromide (Br) / chloride (Cl) / fluoride (F) / sulphate (SO4)</p> <p>further substances (for recycled and relevant manufactured aggregates):</p> <p>Release: pH / electrical conductivity / chromate / ammonium-N / nitrite-N / cyanide / AOX / DOC / PAH / hydrocarbons / phenol</p> <p>Content: EOX / TOC / arsenic / lead / cadmium / chromium / copper / zinc / benzene / ethylbenzene / toluene / xylenes (sum, being the sum of m-xylene, p-xylene and o-xylene) / phenol / naphthalene / phenanthrene / anthracene / fluoranthene / chrysene / benzo(a)anthracene / benzo(a)pyrene / benzo(k)fluoranthene / indeno(1,2,3cd)pyrene / benzo(ghi)perylene / PAHs (sum of the aforementioned PAH and EPA PAH) / PCBs (sum of regulated congeners) / mineral oil /asbestos (weighed, serpentine asbestos plus amphibole asbestos)</p>	2006-557-NL, 2004-71-D, 2005-735-FIN, 2007-385-A
		bound use in public road construction	<p>recycled aggregates and manufactured aggregates</p> <p>Release: pH / electrical conductivity / ammonium-N / nitrite-N / chloride (Cl) / sulphate (SO4) / cyanide / fluoride (F-) / AOX / DOC / PAH (EPA) / phenol index / antimony (Sb) / arsenic (As) / barium (Ba) / lead (Pb) / cadmium (Cd) / chromium (Cr) / chromate / copper (Cu) / molybdenum (Mo) / nickel (Ni) / mercury (Hg) / selenium (Se) / vanadium (V) / zinc (Zn) / mineral oil hydrocarbons / PCB</p> <p>Content: EOX / TOC / arsenic / lead / cadmium / chromium / copper, zinc / PAH / PCB / hydrocarbons</p>	2004-71-D, 2005-735-FIN, 2007-385-A

		bound use in other applications	<p>recycled aggregates and manufactured aggregates</p> <p>Release: pH / electric conductivity / AOX / turbidity / tendency to produce foam / arsenic (As) / antimony (Sb) / barium (Ba) / boron (B) / cadmium (Cd) / chromium (Cr) / chromate / cobalt (Co) / copper (Cu) / lead (Pb) / mercury (Hg) / molybdenum (Mo) nickel (Ni) / selenium (Se) / thallium (Tl) / tin (Sn) / vanadium (V) / zinc (Zn) / cyanide (CN-) / fluoride (F-) / chloride (Cl) / sulphate (SO4) / phenol / highly volatile halogenated hydrocarbons / 1,2-dichloroethane / tri- and tetrachloroethene / chloroethene (vinyl chloride) / alkylated benzenes / benzene / ethylbenzene / toluene / xylenes / MTBE / nonylphenol / chlorinated phenols / hexachlorobenzene / chlorobenzenes / epichlorohydrin / PAH / naphthalene and methylnaphthalenes / PCBs / hydrocarbons</p> <p>Content: EOX / TOC / arsenic / lead / barium / cadmium / chromium total / cobalt / molybdenum / nickel / mercury / selenium / thallium / tin / vanadium / zinc / chloride / cyanide / fluoride / sulphate / PAH / / PCDDs and PCDFs / highly volatile halogenated hydrocarbons / PCBs / hydrocarbons / benzene / ethylbenzene / toluene / xylenes / radioactivity</p>	2006-90-D
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EN Number	Standard Title	Regulated field(s) of application	Requirements	Notified regulations.
EN 13242	Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction	unbound use of any/all aggregates in contact with soil/groundwater and surface water	<p>inorganic parameters (for all aggregates):</p> <p>Release: antimony (Sb) / arsenic (As) / barium (Ba) / cadmium (Cd) / chromium (Cr) / cobalt (Co) / copper (Cu) / mercury (Hg) / lead (Pb) / molybdenum (Mo) / nickel (Ni) / selenium (Se) / tin (Sn) / vanadium (V) / zinc (Zn)/ bromide (Br) / chloride (Cl) / fluoride (F) / sulphate (SO4)</p> <p>further substances (for recycled and relevant manufactured aggregates)</p> <p>Release: pH / electrical conductivity / chromate / ammonium-N / nitrite-N / cyanide / AOX / DOC / PAH / hydrocarbons / phenol</p> <p>Content: EOX / TOC / arsenic / lead / cadmium / chromium / copper / zinc / benzene / ethylbenzene / toluene / xylenes (sum, being the sum of m-xylene, p-xylene and o-xylene) / phenol / naphthalene / phenanthrene / anthracene / fluoranthene / chrysene / benzo(a)anthracene / benzo(a)pyrene / benzo(k)fluoranthene / indeno(1,2,3cd)pyrene / benzo(ghi)perylene / PAHs (sum of the aforementioned PAH and EPA PAH) / PCBs (sum of regulated congeners) / mineral oil / asbestos (weighed, serpentine asbestos plus amphibole asbestos)</p>	2006-557-NL, 2004-71-D, 2005-735-FIN, 2006-223-E, 2007-653-A
		bound use in road construction	<p>recycled aggregates and manufactured aggregates</p> <p>Release: pH / electrical conductivity / ammonium-N / nitrite-N / chloride (Cl-) / sulphate (SO4-) / cyanide / fluoride (F-) / AOX / DOC / PAH (EPA) / phenol index / antimony (Sb) / arsenic (As) / barium (Ba) / lead (Pb) / cadmium (Cd) / chromium (Cr) / chromate / copper (Cu) / molybdenum (Mo) / nickel (Ni) / mercury (Hg) / selenium (Se) / vanadium (V) / zinc (Zn) / mineral oil hydrocarbons / PCB</p> <p>Content: EOX / TOC / arsenic / lead / cadmium / chromium / copper, zinc / PAH / PCB / hydrocarbons</p>	2004-71-D, 2005-735-FIN, 2006-223-E, 2007-653-A

EN 13450	Aggregates for railway ballast	unbound use of any/all aggregates in railway construction	<p>inorganic parameters (for all aggregates)</p> <p>Release: antimony (Sb) / arsenic (As) / barium (Ba) / cadmium (Cd) / chromium (Cr) / cobalt (Co) / copper (Cu) / mercury (Hg) / lead (Pb) / molybdenum (Mo) / nickel (Ni) / selenium (Se) / tin (Sn) / vanadium (V) / zinc (Zn) / bromide (Br) / chloride (Cl) / fluoride (F) / sulphate (SO₄)</p> <p>further substances (for recycled and relevant manufactured aggregates):</p> <p>Release: pH / electrical conductivity</p> <p>Content: benzene / ethylbenzene / toluene / xylenes (sum, being the sum of m-xylene, p-xylene and o-xylene) / phenol / naphthalene / phenanthrene / anthracene / fluoranthene / chrysene / benzo(a)anthracene / benzo(a)pyrene / benzo(k)fluoranthene / indeno (1,2,3cd) pyrene / benzo(ghi)perylene / PAHs (sum of the afore mentioned PAHs) / PCBs (sum of PCB 28, 52, 101, 118, 138, 153 and 180) / mineral oil /asbestos (weighed, serpentine asbestos plus amphibole asbestos)</p> <p>Sensory evaluation: organoleptic test</p>	2006-557-NL, 2006-223-E, 2006-516-D
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EN Number	Standard Title	Regulated field(s) of application	Requirements	Notified regulations.
EN 13383-1	Armourstone - Part 1: Specification	Use in protective structures in water construction	<p>inorganic parameters (for all aggregates)</p> <p>Release: antimony (Sb) / arsenic (As) / barium (Ba) / cadmium (Cd) / chromium (Cr) / cobalt (Co) / copper (Cu) / mercury (Hg) / lead (Pb) / molybdenum (Mo) / nickel (Ni) / selenium (Se) / tin (Sn) / vanadium (V) / zinc (Zn)/ bromide (Br) / chloride (Cl) / fluoride (F) / sulphate (SO₄)</p> <p>further substances (for recycled and relevant manufactured aggregates)</p> <p>Content: benzene / ethylbenzene / toluene / xylenes (sum, being the sum of m-xylene, p-xylene and o-xylene) / phenol / naphthalene / phenanthrene / anthracene / fluoranthene / chrysene / benzo(a)anthracene / benzo(a)pyrene / benzo(k)fluoranthene / indeno (1,2,3cd) pyrene / benzo(ghi)perylene / PAHs (sum of the afore mentioned PAHs) / PCBs (sum of PCB 28, 52, 101, 118, 138, 153 and 180) / mineral oil /asbestos (weighed, serpentine asbestos plus amphibole asbestos)</p> <p>For steel and metal slags additionally: pH, electric conductivity</p>	1996-443-D, 2006-557-NL

NOTE: In regard to Essential Requirement 3 the requirements for information deriving from notified national regulations with respect to relevant substances identified on the EC "Indicative List" have to be fulfilled for relevant aggregates/aggregate categories when and where construction works in which they are used are subject to national regulations containing such requirements. Such harmonisation requires that provisions for the relevant regulated substances have to be included in the affected aggregate standards in an appropriate manner. Where the aggregate/aggregate type is to be used in construction works not subject to a relevant notified national regulation for a substance, performance need not be determined. If additional substances are regulated for the products within the scope of M/125, they may be added to this mandate. This applies both to notified regulations that may have been overlooked when preparing this amendment, or to any new notified regulations.