

MINIMISING THE RISKS OF FRAUD ON CBAM IN THE CEMENT SECTOR

CEMBUREAU Position

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CEMBUREAU supports the implementation of the EU Carbon Border Adjustment Mechanism (CBAM) as a key instrument both to level the playing field between EU and non-EU suppliers and to decarbonise the cement industry. The EU cement sector is confronted with an exponential rise of imports from non-EU countries¹ and in this respect, the timely implementation of a fully watertight CBAM is critical.

The development of CBAM's secondary legislation is particularly important for the smooth operation of CBAM as of 2026 and CEMBUREAU looks forward to contributing to the Commission's work in the coming years.

The present paper focuses specifically on the risks of fraud in the cement sector, which, in CEMBUREAU's view, could be minimised through different measures to be taken ahead of the start of CBAM's operational phase in 2026.

Identifying the problem: cement standards and the risks of CBAM fraud in the cement sector

A key risk of fraud in the cement sector relates to misstatements or false declaration of clinker-to-cement ratios in cement products.

This issue is particularly important as clinker represents a significant part of CO₂ emissions from cement production. Therefore, the quantities of clinker 'declared' in each ton of cement will have a major impact on the amount of CBAM certificates to be surrendered by importers.

In short, clinker is the backbone of cement, and the quantities of clinker contained in cement drives the structural strength of concrete, cement's end product. EU cement standards (as defined in EN 197) are themselves articulated around the clinker content of cements as follows:

- CEM I Portland cement (>95% clinker)
- CEM II Portland-composite cement (65-94% clinker)
- CEM III Blastfurnace cement (5-64% clinker)
- CEM IV Pozzolanitic cement (45-89% clinker)
- CEM V Composite cement (20-64% clinker)
- CEM VI Composite cement (35-49% clinker)

Such differentiation allows the construction sector to opt for the best cement type depending on the construction requirements. Typically, cement types with higher clinker content will be used in heavy

¹ Please see [EU cement trade industry statistics - 2022](#), CEMBUREAU, 2023

infrastructure projects, as well as precast concrete, whilst lower-clinker cements will be used in other lighter applications, such as non-structural walls.

When it comes to CO₂ emissions, cements with a higher clinker content have significantly higher emissions than low-clinker cements. For instance, it is common to see CEM I cements with emissions as high as 800-900 kg/CO₂ per tonne of cement, whilst low-clinker cements such as CEM III may go as low as 200 kg/CO₂ per tonne.

There is, therefore, a significant risk of fraud which would consist in declaring (willingly or not from the side of the CBAM declarant, who could also be misled by third country installations) as a low-carbon cement a product which is actually CO₂-intensive. This risk is significant as usually, several cement types with different clinker content are produced in one cement installation: it is therefore very possible that an accredited verifier would check 'in good faith' the embedded CO₂ in a given plant's CEM III cement, but that the plant would export to the EU a CEM I cement instead.

As it is impossible to visually distinguish cement types, CEMBUREAU believes such risk of fraud as being particularly high. Furthermore, imported CEM I can be processed further in cement grinding stations, so that the product sold ultimately in the EU does not necessarily have to be exactly the same than the imported cement product. This opens an additional window to hide systematic fraud.

Given the size of the cement shipments originating from non-EU countries, the above-mentioned risks of fraud would amount to several million Euros per shipload.

1. First mitigation measure: reviewing the EU TARIC codes to distinguish between cement types

The current structure of the 8-digit Combined Nomenclature (CN) for cement and clinker (which are included in CBAM) classifies the different cement goods into five categories:

CN Code	Description
25231000	Cement clinkers
25232100	White portland cement, whether or not artificially coloured
25232900	Portland cement (excl. white, whether or not artificially coloured)
25233000	Aluminous cement
25239000	Other hydraulic cements

However, the implicit carbon footprint in the different products that fall into each of the five CN categories can differ significantly depending on the actual product being imported.

As mentioned above, the clinker to cement ratio may greatly vary, in accordance with the existing cement standards, ranging from a minimum proportion of 5% for CEM III/C cement to 100% for CEM I cements. Consequently, embedded CO₂ emissions can vary significantly depending on the type of cement being imported.

Furthermore, in the case of clinker (25231000), imports may correspond to white clinker, grey clinker or aluminous clinker. White clinker (due to its technical characteristics) has much higher embedded CO₂ emissions (about 30% more) than grey clinker, while aluminous clinker has embedded emissions usually 5% higher than those of grey clinker.

Our proposal is to adapt the EU 10-digit Integrated Tariff (TARIC) codes, so that the identification of goods imported under heading 2523 allows an adequate refined categorisation and assessment of the approximate embedded CO2 emissions. This information would therefore be provided by the customs authorities to the national Competent Authorities and the European Commission, to allow for adequate monitoring regarding the emissions reported by authorized declarants and/or importers in their CBAM reports.

In further details, we suggest the following adaptations:

25231000 – Cement clinkers

Any clinker import, whether white, grey or aluminous, should appear under this heading, and there should be an additional code identifying the type of clinker imported. As an example, the additional code could be:

Additional code	Clinker Type
A	Aluminous clinker
B	White clinker
G	Grey clinker

25232100 – White portland cement, whether or not artificially coloured

This heading should include any type of imported white cement, whether CEM I, CEM II, CEM III, etc. Under no circumstances white/grey clinker import should be entered under this heading. An additional code identifying the type of white cement and another additional code identifying, in 10 percentage point increments the clinker/cement ratio of the imported product, should be included. As an example, the additional codes could be structured by two code digits as follows:

Additional Cement Type Code, 1st digit	
Additional code	Type of cement
1	Cement type CEM I
2	Cement type CEM II
3	Cement type CEM III
4	Cement type CEM IV
5	Cement type CEM V
6	Cement type CEM VI

Additional code for clinker/cement ratio, 2nd digit	
Additional code	Clinker/cement ratio
0	Between 1% and 9%
1	Between 10% and 19%
2	Between 20% and 29%
3	Between 30% and 39%
4	Between 40% and 49%
5	Between 50% and 59%
6	Between 60% and 69%
7	Between 70% and 79%
8	Between 80% and 89%
9	Between 90% and 100%

25232900 – Portland cement (excl. white, whether or not artificially coloured)

Imports of CEM I and CEM II grey cements, which are referred to as Portland cements in the standard table, should be reported under this heading. Under no circumstances, white cement imports should be entered under this heading, even if they may be CEM I and CEM II, nor imports of clinker.

Additional Cement Type Code, 1st digit	
Additional code	Type of cement
1	Cement type CEM I
2	Cement type CEM II

As in the case of heading 25232100, an additional code should be included identifying the type of cement and another identifying the clinker/cement ratio of the imported product in 10 percentage point increments, in the latter case the table indicated for heading 25232100 should be taken as a reference.

25233000 – Aluminous cements

Imports of so-called aluminous cements should be reported under this heading. Under no circumstances clinker imports should be entered under this heading, even if it corresponds to aluminous clinker. As in the case of heading 25232100, an additional code should be included identifying the clinker/cement ratio of the imported product in 10 percentage point increments, using the table for heading 25232100 as a reference.

25239000 – Other hydraulic cements

Imports of grey cements CEM III, CEM IV, CEM V and CEM VI should be reported under this heading, which are referred to in the standard table as blast furnace cements, pozzolanic cements and composite cements. Under no circumstances white cement imports should be recorded under this heading, even if they may be CEM III, CEM IV, CEM V or CEM VI, or imports of clinker. As in the case of heading 25232100, an additional code should be included identifying the type of cement and another identifying the clinker/cement ratio of the imported product in 10 percentage point increments, in the latter case the table indicated for heading 25232100 should be taken as a reference.

Additional Cement Type Code, 1st digit	
Additional code	Type of cement
3	Cement type CEM III
4	Cement type CEM IV
5	Cement type CEM V
6	Cement type CEM VI

As in the case of heading 25232100, an additional code should be included identifying the type of cement and another identifying the clinker/cement ratio of the imported product in 10 percentage point increments, in the latter case the table indicated for heading 25232100 should be taken as a reference.

A full summary table containing the additional codes to be considered in the TARIC, in order to properly identify goods imported under heading 2523 of the CN and their approximate embedded CO₂, is provided in the annex of this position paper.

2. Second mitigation measure: mandatory sampling of cements imported under CBAM

As mentioned previously, and even with the above-mentioned TARIC review in place, a check of the embedded CO₂ emissions will not be possible from a visual inspection of the cements. However, a sample analysis of at least the most relevant parameter, i.e. the composition of the cement and in particular its clinker content, will allow to check the correct attribution of the CBAM reports and the plausibility and accuracy of the stated embedded emissions. Therefore, avoiding fraud by wrong attribution between a provided embedded CO₂ statement and the physically imported product requires the establishment of regular procedures for checking through sampling and analysis of the imported product. Analysing procedures shall be performed by accredited laboratories in the respective member states. Wrong attributions and misstatements with significant economic relevance can only be identified with such analysis.

In CEMBUREAU's view, the Implementing Act for the transition period² lacks provision requesting the declarant to report additional information from sampling of the imported good at the entry to the EU. Conversely, requiring a sample of the imported product from the CBAM declarant as measure for fraud prevention, or systematically sampling products at custom points, would largely mitigate any risk of fraud.

All the more, sampling procedures are well established according to existing standards and can be contracted and performed by accredited organisations in the EU as follows:

Sampling

Sampling should be carried out according to EN 196-7³. Sampling of bulk or packed cement from large delivery units like ships and trains is explicitly covered by this standard. Details for taking a representative sample from the specific bulk, splitting of subsamples, dispatch of laboratory samples and storage of retain samples should be defined in a sampling plan, and must be documented in a sampling report (clause 10 of EN 196-7).

Analysis

The determination of the clinker content in cement should be carried out according to CEN/TR 196-4⁴ by an accredited laboratory. When performing the selective dissolution steps described (reference method), reproducibility standard deviations of 2 to 4 % are obtained for such analyses, depending on the cement composition (number and type of cement main constituents). Alternative analytical methods (e.g. quantitative X-ray diffraction) may be used if the method is accredited and sufficient precision is proven by the laboratory.

We therefore strongly recommend that, as of the start of the operational date, a sample analysis on imported cements is performed at the entry point into the EU.

² Commission Regulation 2023/1773 laying down the rules for the application of Regulation (EU) 2023/956 of the European Parliament and of the Council as regards reporting obligations for the purposes of the carbon border adjustment mechanism during the transitional period

³ EN 196-7: 2007 Methods of testing cement – Part 7: Methods of sampling and sample preparation

⁴ CEN/TR 196-4: 2007 Methods of testing cement –Part 4: Quantitative determination of constituents

Annex 1 – Summary of proposed changes to TARIC code

TARIC Code	Imported product	Additional clinker/cement type code 1 st digit		Additional code for clinker/cement ratio 2 nd digit	
		Code	Description	Code	Description
25231000	Clinker	A	Aluminous clinker		
		B	White clinker		
		G	Grey clinker		
25232100	White Portland Cements	1	CEM I	0	Between 1% and 9%
		2	CEM II	1	Between 10% and 19%
		3	CEM III	2	Between 20% and 29%
		4	CEM IV	3	Between 30% and 39%
		5	CEM V	4	Between 40% and 49%
		6	CEM VI	5	Between 50% and 59%
				6	Between 60% and 69%
				7	Between 70% and 79%
				8	Between 80% and 89%
		9	Between 90% and 100%		
25232900	Portland cements, others: this code shall include type CEM I and CEM II cements	1	CEM I	0	Between 1% and 9%
		2	CEM II	1	Between 10% and 19%
				2	Between 20% and 29%
				3	Between 30% and 39%
				4	Between 40% and 49%
				5	Between 50% and 59%
				6	Between 60% and 69%
				7	Between 70% and 79%
				8	Between 80% and 89%
		9	Between 90% and 100%		
25233000	Aluminous cements			0	Between 1% and 9%
				1	Between 10% and 19%
				2	Between 20% and 29%
				3	Between 30% and 39%
				4	Between 40% and 49%
				5	Between 50% and 59%
				6	Between 60% and 69%
				7	Between 70% and 79%
				8	Between 80% and 89%
		9	Between 90% and 100%		
25239000	Other hydraulic cements: this code covers type CEM III, CEM IV, CEM V and CEM VI	3	CEM III	0	Between 1% and 9%
		4	CEM IV	1	Between 10% and 19%
		5	CEM V	2	Between 20% and 29%
		6	CEM VI	3	Between 30% and 39%
				4	Between 40% and 49%
				5	Between 50% and 59%
				6	Between 60% and 69%
				7	Between 70% and 79%
				8	Between 80% and 89%
		9	Between 90% and 100%		