

# Standard



BNQ 0419-090/2015

Liming Materials from Industrial Processes



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BNQ 0419-090/2015

Liming Materials from Industrial Processes

*Amendements calciques ou magnésiens provenant de  
procédés industriels*

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ICS: 65.080

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## LIMING MATERIALS FROM INDUSTRIAL PROCESSES

### 1 PURPOSE

This standard specifies the characteristics of liming materials derived from industrial processes, as well as criteria and test methods for assessing these characteristics.

### 2 SCOPE

This standard applies to industrial products and by-products intended for use as soil amendments consistent with agronomical or silvicultural principles, and that are derived from:

- a) the reaction of calcium carbide with water in the production of acetylene (products and by-products essentially containing hydrated lime  $[\text{Ca}(\text{OH})_2]$ );
- b) the dust collecting system of lime kilns;
- c) the production of commercial quicklime (CaO) or hydrated lime  $[\text{Ca}(\text{OH})_2]$ ;
- d) the production of calcium carbonate ( $\text{CaCO}_3$ ) from quicklime;
- e) kraft pulp mills producing lime mud, green liquor dregs and slaker grits;
- f) the combustion (with or without auxiliary fuel) of wood that is not chemically treated or has not been in contact with a salt, wood residue (except that resulting from the manufacture of panels), residue from deinking, sludge resulting from the treatment of process waters from pulp and paper plants using no chlorine bleaching agents to bleach the pulp and not crushing pulp that is bleached with these agents. Bottom ash and fly ash resulting from the combustion of these products are generated, among others, by sawmills, pulp and paper mills or power stations;
- g) the combustion of wood residue from wood-panel manufacturing plants (for example particle board, plywood), wood from construction, renovation and demolition (CRD) material sorting centres or treated wood, sludge resulting from the treatment of process waters from pulp and paper plants using chlorine bleaching agents to bleach the pulp or crushing pulp that is bleached with these agents, municipal sludge. These products may be burned alone or together with the products mentioned in item f);



- h)* fine by-products resulting from metal recovery during the treatment of slag from steel mills or primary smelters;
- i)* cement kiln dust;
- j)* a dust collecting system used in the grinding of limestone or shale rock;
- k)* a dust collecting system used in the preparation of calcareous aggregate for bituminous concrete production;
- l)* the dissolving of magnesite during the production of magnesium;
- m)* a deactivated by-product resulting from the cleaning of electrolytic cells and magnesium furnaces during the production of magnesium from magnesite (this product is referred to as BPEF hereafter);
- n)* the purification of calcium carbonate originating from natural ground calcium carbonate;
- o)* the production of a liquid liming material from natural limestone particles that have been micronized and put into suspension;
- p)* lime sludge resulting from water softening treatment (through the addition of lime) used in boilers to produce steam;
- q)* eggshells from agri-food processing plants;
- r)* deinking residues liming resulting from the production of deinked pulp;
- s)* by-products resulting from the capture of SO<sub>2</sub>.

This standard also applies to mixtures composed exclusively of two or more of the products listed in items *a)* to *s)* above whose total neutralizing value is equal to or greater than 25 %, or to mixtures composed exclusively of one or more of these products and one of the following liming materials: natural limestone or quicklime.

This document was developed to serve as a reference document for conformity evaluation activities of liming materials.

NOTE — Conformity evaluation is defined as the systematic examination of the extent to which a process fulfils specified requirements.

### **3 NORMATIVE REFERENCES**

In this document, a dated normative reference means that this specific edition shall be used, while a non-dated normative reference means that the last edition of the reference shall be used.