
**Carbonaceous materials used in the
production of aluminium — Cold and
tepid ramming pastes — Determination of
rammability of unbaked pastes**

*Produits carbonés utilisés pour la production de l'aluminium — Pâtes de
brasquage froides et tièdes — Détermination de l'aptitude au
brasquage des pâtes non cuites*



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Published in Switzerland

Foreword

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ISO 17544 was prepared by Technical Committee ISO/TC 47, *Chemistry*, Subcommittee SC 7, *Aluminium oxide, cryolite, aluminium fluoride, sodium fluoride, carbonaceous products for the aluminium industry*.

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Carbonaceous materials used in the production of aluminium — Cold and tepid ramming pastes — Determination of rammability of unbaked pastes

1 Scope

This International Standard describes a method of producing a compaction curve indicating the rammability of carbonaceous ramming pastes used to line cathodes utilized in the production of aluminium.

Determination of the rammability enables a ramming paste with the optimum density to be selected.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5725-2, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO 14422, *Carbonaceous materials used in the production of aluminium — Cold-ramming pastes — Methods of sampling*

3 Symbols

h	measured height of test specimen, in cm
m	mass of paste placed in cylinder, in g
N	number of impacts
N_2	minimum value of second derivative of $\rho(N)$
r	inner radius of rammer cylinder, in cm
α	scaling or normalization parameter describing the steepness of the compaction curve (which decreases as α increases)
γ	location parameter which shifts the origin of the distribution
ρ_{\max}	maximum value of density, in $\text{g}\cdot\text{cm}^{-3}$
ρ_0	initial value of density, representative of loose compaction of the paste under its own weight, in $\text{g}\cdot\text{cm}^{-3}$
$\rho(N)$	density after N impacts, in $\text{g}\cdot\text{cm}^{-3}$