Revised 3rd ed. of Sampling Standard DS 3077

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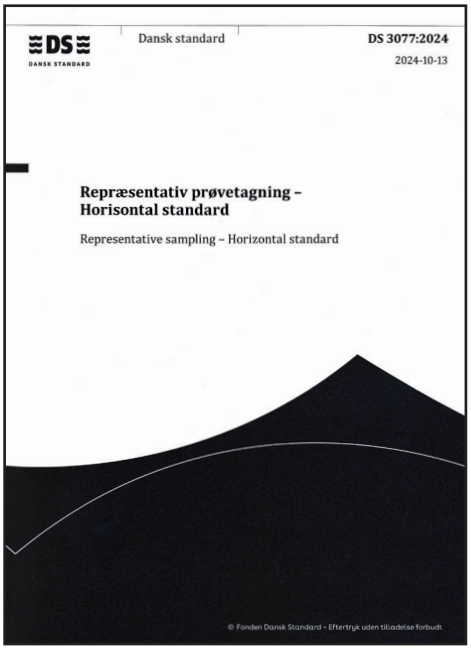
The Danish Standard Foundation (DS) announces the publication of DS 3077:2024, the third edition of the generic sampling standard released in October 2024. This edition culminates a 15+ year development project that began in 2008 and succeeds the second edition published in 2013.

Since the millennium's start, the Theory of Sampling (TOS) has developed into an axiomatic system with six Governing Principles, eight Sampling Errors, and four Sampling Unit Operations.

This framework led to DS 3077 becoming the world's first dedicated standard for representative sampling principles, as documented by Esbensen & Julius (2013). After a decade, this timely third revision updates these foundational concepts.



DS 3077:2024 "Representative sampling – Horizontal standard" aims to serve as the universal standard for sampling all particulate, aggregate and mixture materials, providing authoritative guidance for sampling activities across science, technology, industry, commerce, and regulatory contexts.

The standard can be downloaded at: https://webshop.ds.dk/en/standard/M374267/ds-3077-2024

DS has proposed managing a process to elevate DS 3077:2024 to ISO standard status, with support from the International Pierre Gy Sampling Association (IPGSA).

SCOPE:

"The Theory of Sampling (TOS) is a generic, matrix-independent framework for representative sampling of all types of aggregate and mixture materials (solid, slurries) in all grain-size brackets (from broken ores to powders). TOS' universal sampling principles can be applied uniformly to all types of materials, and lots composed by aggregate particular matter and slurries. This document describes a generic sampling process in sufficient detail and covers all elements necessary for the stated objective, enabling documentation of sampling representativity under the specified conditions for the sampling process employed. DS 3077 constitutes a complete competence basis for representative sampling, ensuring appropriate levels of accuracy and precision for both primary sampling as well as for all sub-sampling procedures and mass-reduction operations subsequent stages before delivering a guaranteed representative aliquot for analysis. This document outlines a systematic scientific basis for designing new and assessing, and if necessary improving, the performance of existing sampling procedures. The approach described in this document will contribute toward increased reliability in decision-making based on analytical measurement results. This document establishes a basis enabling professional sampling quality control (QC) by mandating disclosure of results from relevant sampling quality objectives (QO): For sampling of stationary lots: Replication Experiment (RE); for sampling of dynamic lots: Variographic Analysis (VA). This document contains an independent macro with variographic software (freeware) making variographic characterisation available for a set of samples restricted to 100 (Annex C)."

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