



ISO 8858-3

**Coal — Froth flotation testing —
Part 3:
Release evaluation**

*Charbon — Essais de flottation —
Partie 3: Évaluation des émission*

**Second edition
2025-11**



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This second edition cancels and replaces the first edition (ISO 8858-3:2004), which has been technically revised.

The main changes are as follows:

- the title has been updated;
- ISO 13909-2, ISO 13909-4 and ISO 20904 were included as normative references.

A list of all parts in the ISO 8858 series can be found on the ISO website.

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The froth flotation of coal has widespread application for the recovery of fine coal particles and their separation from unwanted mineral matter. The response of coal to the froth flotation process is measured initially by a laboratory scale test. ISO 8858-1 provides a means of evaluating the general flotation characteristics of a coal under a set of specified conditions and will not necessarily indicate the full potential of that coal. It is accepted that variation of the many parameters in the froth flotation process can be used to effect the beneficiation of the product. This document describes methods of applying certain test conditions to reveal the relative response of coals to the flotation process.

To facilitate the determination of how a particular coal will respond to froth flotation, a method of controlling the recovery of froth is used. This is done by inhibiting the process to a degree, determining the rate at which coal reacts and by progressively sampling the froth. This method provides a basis to vary test parameters to explore any special flotation characteristics.

This document is applicable to a wide range of coals and provides a method of comparison of flotation behaviour and will facilitate the exchange of information relating to specific performance. It is expected that the use of this method will provide a tool for comparison of flotation characteristics.

From the results of the standard test, it is possible to draw evaluation curves similar to those obtained from the float and sinking of coal.

Because of the high reproducibility of results, the test represents a reliable means of comparing the flotation response of different samples.