

DATA BULLETIN

Description of the parameter analyzed by the soli TOC cube

When determining the carbon content of solids, often it is not enough just to differentiate between TIC and TOC. When evaluating wastes, for example, elemental carbon (ROC) should be determined separately, since this form of carbon is not bioavailable. The soli TOC cube is designed, to determine the different fractions of carbon in solid samples by using a temperature ramping program. The sample is heated at a rate of 70 °C per minute to the designated temperature, and then maintained for the given hold time. The CO₂ produced at the different temperatures represents the various carbon fractions, which are in compliance with the DIN 19539 standard.

The parameters analyzed by the soli TOC cube are defined as follows (according to DIN 19539)

PARAMETER	DESCRIPTION
TOC ₄₀₀	total organic carbon which is released up to 400°C
ROC*	residual oxidizable carbon, determined between the signal minimum at 400°C and at 600°C in the case of dry combustion in a current of oxygen
TIC ₉₀₀	total inorganic carbon which is released up to 900°C
TOC	total organic carbon, sum of TOC ₄₀₀ and ROC
C	total carbon, sum of TOC ₄₀₀ , ROC and TIC ₉₀₀

* When using the method DIN 19539 GS, then ROC is defined as the carbon determined during dry combustion in a current of oxygen after the TIC900 measurement at 900 °C.

INSTRUMENT:

soli TOC cube

DETAILS:

description parameters soli TOC cube



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