

Reference material of specific combustion energy (benzoic acid K-3)

SRM 5504-90, IRM 1750:2011

SRM IS APPLIED FOR verification and calibration of combustion bomb calorimeter and performs the functions of the working standard of the 1st category.



IT IS APPLIED in fuel and energy complex, coal, petrochemical industry, when calibrating and verifying the combustion bomb calorimeters, performs functions of the working standard.

ADDITIONAL INFORMATION: RM is recognized as an interstate reference material (IRM) by the decision of EASC of 29th of November 2011, protocol No. 40-2011, entered in the IRM Register under No. 1750: 2011 and is allowed for use without restrictions in: Azerbaijan Republic, Republic of Armenia, Republic of Belarus, Georgia, Republic of Kazakhstan, Kyrgyz Republic, Republic of Moldova, Republic of Tajikistan, Turkmenistan, Republic of Uzbekistan and Ukraine.

RM index	RM certified characteristic	Symbol of a measurement unit	Certified value of RM	Absolute error range of certified value (at P=0,95)***
K-3	Specific energy of combustion*	kJ/kg	26434**	±5
	Mole fraction of a main component	%	99,990	±0,003

* – for standard (bomb) conditions: combustion takes place in a constant volume bomb in a pure oxygen environment at initial pressure of $2,94 \cdot 10^6$ Pa and temperature of 298 K.

** – sample weight is lead to vacuum.

*** – corresponds to expanded uncertainty U at coverage factor $k=2$.