

ICS 27.010
CCS F01



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 30530-2024

Replacing GB 30530-2014

**Norm of energy consumption per unit production of dimethyl
siloxane**

二甲基硅氧烷单位产品能源消耗限额

Issued on: April 29, 2024

Implemented on: May 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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1 Scope

GB 30530-2024 is the Chinese national standard on norm of energy consumption per unit production of dimethyl siloxane, in the field of energy and heat transfer engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 29 April 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2025.

Classification: ICS 27.010, CCS F01. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the grade, technical requirements, statistical scope and calculation method of the allowance of comprehensive energy consumption per unit production (referred to as energy consumption) of dimethyl siloxane. This document is applicable to the calculation and assessment of the comprehensive energy consumption per unit production of dimethyl siloxane, as well as the energy consumption control of new (renovation, expansion) projects.

2 Normative references

The provisions of the following documents constitute the essential clauses of this document through normative references in this text. Among them, for referenced documents with dates, only the versions corresponding to the dates are applicable to this document; for referenced documents without dates, the latest versions (including all amendments) are applicable to this document.

GB/T 2589 General rules for calculation of the comprehensive energy consumption

GB/T 12723 General principles for establishing allowance of energy consumption per unit throughput

GB/T 20436 Dimethylsiloxane cyclics mixture

GB/T 23953 Dimethyldichlorosilane for industrial use

3 Terms and definitions

The terms and definitions defined in GB/T 12723 and the following apply to this document.

3.1 hydrolysate A mixture with the main components of hydroxy-terminated polydimethylsiloxane and cyclosiloxane.

5 Technical requirements

5.1 Limit value of comprehensive energy consumption per unit production of dimethyl siloxane The limit value of comprehensive energy consumption per unit product of existing dimethyl siloxane production enterprises shall comply with Grade 3 in Table 1.

5.2 Access value of comprehensive energy consumption per unit production of dimethyl siloxane The access value of comprehensive energy consumption per unit product of new (expanded, renovated) dimethyl siloxane production enterprises shall comply with Grade 2 in Table 1.

6.1 Statistical scope of comprehensive energy consumption of dimethyl siloxane

6.1.1 The comprehensive energy consumption of dimethyl siloxane mainly includes the energy consumption of the production system, the energy consumption of the auxiliary production system and the energy consumption of the ancillary production system.

6.1.2 The energy consumption of the production system refers to the total amount of various energy actually consumed by the complete process including the silicon powder processing, monochloromethane synthesis, organosilicon monomer synthesis, organosilicon monomer distillation, organosilicon high-boiling cracking, the comprehensive utilization of dimethyldichlorosilane, dimethyldichlorosilane hydrolysis, dimethyl siloxane refining, cracking, dimethyl cyclosiloxane distillation, storage of finished dimethyl siloxane, and pre-treatment and discharge of waste liquid, waste residue and waste gas, as well as energy consumption by equipment.

6.1.3 The energy consumption of auxiliary production systems refers to the total amount of energy consumed by the processes, facilities and equipment of the production system services, including the total amount of energy consumed by the power supply, water supply, gas supply, heating, refrigeration, machine repair, instrument repair, lighting, warehouses

and raw material sites within the factory, as well as safety and environmental protection facilities.

6.1.4 The energy consumption of ancillary production systems refers to the total amount of energy consumed by departments and units that provide services for production during the production process, including the total amount of energy consumed by facilities such as offices, operation rooms, lounges, changing rooms, bathhouses, central control analysis, finished product inspection and maintenance.

6.1.5 The comprehensive energy consumption of dimethyl siloxane does not include the energy consumed in the construction of infrastructure, technological transformation and other projects, as well as the energy recycled and exported during the production process.

6.2 Calculation method

6.2.1 General The actual consumption of various fuel energies shall be converted into standard coal according to its lower heating value as received in accordance with GB/T 2589. The lower heating value of energy and the energy consumption of the energy-consumed medium shall be converted into standard coal according to the measured values or the data provided by the supply unit. If the measured values cannot be obtained, the conversion coefficient can be referred to in Appendix A and Appendix B.