



उत्पाद मैनुअल
रासायनिक उद्योग और तेल-कूप ड्रिलिंग के लिए बेराइट्स
भारतीय मानक 2881: 2024 के अनुसार
PRODUCT MANUAL
FOR
BARYTES FOR CHEMICAL INDUSTRY
AND OIL-WELL DRILLING
ACCORDING to IS 2881: 2024

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो) अनुरूपता मूल्यांकन (विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या IS No.	:	IS 2881: 2024
	शीर्षक Title	:	रासायनिक उद्योग और तेल-कूप ड्रिलिंग के लिए बेराइट्स Barytes for Chemical Industry and Oil-Well Drilling.
	संशोधनों की संख्या No. of amendments	:	Nil.
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	No specific requirements.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to Annex-A .
c)	नमूने का परिमाण Sample Quantity	:	1 kg <i>Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in</i>

		market)
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	: 1. Grade. 2. Quality in Grade 1. 3. With or without off-shore drilling in Grade 2. <i>Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.</i>
3.	परीक्षण उपकरणों की सूची List of Test Equipment	: Please refer to <u>Annex-B</u> .
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	: Please refer to <u>Annex-C</u> .
5.	एक दिन में संभावित परीक्षण Possible tests in a day	
	All tests except the Performance test (unless the bentonite suspension has already been aged and only the final viscosity measurement is to be witnessed). <i>Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies(OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.</i>	
6.	लाइसेंस का दायरा/Scope of the Licence:	
	“Licence is granted to use Standard Mark as per IS 2881: 2024 with amendment no. 1 with the following scope:	
	Name of the product	Barytes for Chemical Industry and Oil-Well Drilling
	Grade	Grade 1 / Grade 2
	Quality (Applicable only for Grade 1)	A / B
	Off-shore drilling (Applicable only for Grade 2)	With / Without

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9, BAHADUR SHAH ZAFAR
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ANNEX - A
GROUPING GUIDELINES

1. IS 2881 classifies the product, Barytes for Chemical Industry and Oil-Well Drilling as following:
 - a. Grade 1 — suitable for chemical industry
 - i. Quality A
 - ii. Quality B
 - b. Grade 2 — suitable for petroleum industry in oil-well drilling operations
 - i. With off-shore drilling
 - ii. Without off-shore drilling
2. Following shall be applicable for coverage of a variety in the scope of licence through Grant of Licence (GOL)/ Change in Scope of Licence (CSOL):
 - a. Material of each grade shall be tested for coverage in the scope.
 - b. Under *Grade 1, Quality B* may be covered in the scope upon testing of material of *Quality A*.
 - c. Under *Grade 2, Without off-shore drilling* may be covered in the scope upon testing of *With off-shore drilling* material.
3. However, while considering grant of licence/change in scope of licence, it will be ensured that the applicant/licensee has got the complete manufacturing and testing facilities, as applicable for all the varieties intended to be covered.
4. During operation of the licence, BOs shall ensure that all the samples are tested for all applicable requirements on the product, and varieties covered in the licence are tested in rotation.

ANNEX - B
LIST OF TEST EQUIPMENT
(INDICATIVE LIST, FOR GUIDANCE ONLY)

<i>Clause</i>	<i>Requirement</i>	
4.1	Description	
4.2, Table 1	Insoluble minus silica	<u>Classical method</u> 1. Gas-heated or electric furnace 2. Filter paper (whatman no. 40 or equivalent) 3. Reagents 4. Weighing balance 5. Platinum crucible 6. Glassware 7. Hot-plate 8. Gooch crucible 9. Muffle furnace 10. Desiccator <u>Insoluble-minus silica method</u> 1. Reagents 2. Water-bath 3. Weighing balance 4. Whatman no. 48 filter paper (or equivalent) 5. Oven 6. Platinum crucible 7. Sand-bath 8. Burner
4.2, Table 1	Silica	1. Reagents 2. Glassware 3. Filter paper 4. Platinum crucible 5. Weighing balance
4.2, Table 1	Aluminium	<u>Method A</u> 1. Reagents 2. Glassware 3. Weighing balance <u>ICP-OES method</u> 1. Inductively coupled plasma optical emission spectrometer (ICP-OES) 2. Reagents and Solutions 3. Instrument <u>ICP-MS method</u> 1. Inductively coupled plasma mass spectrometer (ICP-MS) 2. Reagents and Solutions 3. Instrument
4.2, Table 1	Iron	-do-
4.2, Table 1	Calcium and magnesium	-do-

4.2, Table 1	Fineness	1. Weighing balance 2. 75 micron and 53 micron IS sieves 3. Soft camel-hair brush
4.2, Table 1	Relative density	1. Relative density bottle 2. Glassware 3. Reagent 4. Vacuum pump
4.2, Table 1	Matter soluble water	1. Weighing balance 2. Filter paper 3. Platinum dish 4. Water-bath 5. Oven
4.2, Table 1	Performance	1. Direct Indicating Torsion-Viscometer 2. Electric Stirrer 3. Material 4. Weighing balance

The above list is indicative only and may not be treated as exhaustive.

ANNEX - C
SCHEME OF INSPECTION AND
TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: *Barytes of the same Grade and Quality (and the material with off-shore drilling, where applicable) manufactured under similar conditions of production in a day shall constitute a control unit.*

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in Table 1. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan.

2. ENSURING COMPLIANCE THROUGH TESTING- manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

- i) Shared testing resources like common facility,
- ii) Cluster based testing facility,
- iii) Sub-contracting to outside laboratories which may either be:
 - a) BIS recognised/empanelled laboratories, or

b) Any accredited laboratory as per ISO/IEC 17025

2.1 TEST RECORDS- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. PACKING AND MARKING- The Standard Mark, as given in the Schedule of the licence, shall be incorporated legibly and indelibly on each bag of material, provided always that the material so marked, conform to every requirement of the specification.

3.1 Packing and marking shall be done as per the provision of the Indian Standard. In addition, each bag of material shall also be marked with the following additional requirement:

a) BIS Licence No. CM/L _____.

b) BIS website details: "For BIS certification details please visit www.bis.gov.in"

4. REJECTION - The production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1
(Recommended Levels of Control by BIS - For Guidance Only)

(1)				(2)	
Test Details				Levels of Control	
<i>Clause</i>	<i>Requirement</i>	<i>Test Methods</i>		<i>No. of Sample</i>	<i>Frequency</i>
		<i>Clause</i>	<i>Reference</i>		
4.1	Description	4.1	IS 2881	One	Each control unit
4.2, Table 1	Insoluble minus silica	B-2	IS 2881	One	Each control unit
4.2, Table 1	Silica	B-3	IS 2881	One	Each control unit
4.2, Table 1	Aluminium	B-4, or B-11, or -	IS 2881 / IS 3025 (Part 65)	One	Each control unit
4.2, Table 1	Iron	-do-	-do-	One	Each control unit
4.2, Table 1	Calcium and magnesium	-do-	-do-	One	Each control unit
4.2, Table 1	Fineness	B-7	IS 2881	One	Each control unit
4.2, Table 1	Relative density	B-8	IS 2881	One	Each control unit
4.2, Table 1	Matter soluble water	B-9	IS 2881	One	Each control unit
4.2, Table 1	Performance	B-10	IS 2881	One	Once in a month