

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS R 6111 : 2020

(JGWA/JSA)

Artificial abrasives

ICS 25.100.70

Reference number : JIS R 6111 : 2020 (E)

R 6111 : 2020

Date of Establishment: 1952-05-08

Date of Revision: 2020-12-21

Date of Public Notice in Official Gazette: 2020-12-21

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

JIS R 6111 : 2020, First English edition published in 2021-10

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2021

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

AH/HN

PROTECTED BY COPYRIGHT

Contents

		Page
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Type of artificial abrasives	2
5	Grain sizes	3
6	Quality	3
6.1	Chemical composition and density	3
6.2	Distribution of grain sizes	5
6.3	Bulk density	5
7	Test methods	5
7.1	Chemical composition	5
7.2	Density	5
7.3	Distribution of grain sizes	5
7.4	Bulk density	5
8	Inspection method	5
9	Report	6
10	Marking	7

Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Grinding Wheel Association (JGWA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS R 6111 : 2005**), which has been technically revised.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

Artificial abrasives

1 Scope

This Japanese Industrial Standard specifies the requirements for artificial abrasives made of alumina-base, alumina zirconia-base and silicon carbide-base materials (hereafter referred to as artificial abrasives) among artificial abrasives to be used for raw materials of abrasive products such as bonded abrasive products and coated abrasives and for other grinding or polishing processing. However, it does not apply to super-abrasives (diamond/CBN) or natural abrasives (e.g. garnet).

Examples of other grinding or polishing processing are shown as follows

- processing with polishing brush;
- processing with free abrasive grain, such as lapping, polishing and sandblast.

2 Normative references

Part or all of the provisions of the following standards through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS R 6001-1 *Bonded abrasives — Determination and designation of grain size distribution — Part 1 : Macrogrits F4 to F220*

JIS R 6001-2 *Bonded abrasives — Determination and designation of grain size distribution — Part 2 : Microgrits*

JIS R 6004 *Abrasives, bonded abrasive products and coated abrasives — Terms and marks*

JIS R 6010 *Coated abrasive grain sizes*

JIS R 6011 *Testing method for grain size of coated abrasive macrogrits (P12-P220)*

JIS R 6012 *Testing method for grain size of coated abrasive microgrits (P240-P2500)*

JIS R 6123 *Method for chemical analysis of alumina abrasives*

JIS R 6124 *Method for chemical analysis of silicon carbide abrasives*

JIS R 6125 *Testing method for density of artificial abrasives*

JIS R 6130 *Testing method for bulk density of artificial abrasives*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS R 6004** apply.