

Product marking requirements for bonded abrasives

This document provides guidance and explanations for the marking of bonded abrasive products on the basis of the EN 12413, oSa Technical Annex and Conditions of Use for the oSa Trademark.

Marking requirements for specific products according to EN 12413:2019 and oSa

Specifications	1	2	3	4	5	6	7	8	9	10	11
Description of abrasive product	Manufacturer, supplier, importer, trademark	Dimensions mm	Specification mark	Maximum operating speed ^a m/s	Maximum permissible speed of rotation 1/min or rpm	Declaration of conformity	Restriction of use	Traceability code	safety signs	oSa Logo	Private label number
Abrasive wheels Type 27, 28, 29, 41 and 42 for hand held application	X	X	X	X	X	X	X	X	X	X	Must be used on all private label products bearing the oSa logo
Segments	X	X	X	-	-	X	-	X	-	X	
Mounted wheels and grinding tools with shank	X	X	X	-	X	X	-	X	-	X	
Grinding cone	X	X	X	X	X	X	-	X	-	X	
Abrasives products with magnesite bond	X	X	X	X	X	X	-	X	-	X	
All other	X	X	X	X	X	X	X	X	-	X	

^a Additional marking with coloured stripes in accordance with Annex D

To specification 1: Trade name

Instead of the name of manufacturer, supplier or importer their registered trademark may be shown.

To specification 2: Dimension

Abrasive products	—	nominal dimensions, in particular the diameter of the bore (e.g. $H = 22,23$ mm for abrasive products to use on hand-held grinding machines) in accordance with ISO 525
Mounted wheels and points	—	nominal dimensions, diameter of the spindle and minimum clamping length
Cones and plugs	—	nominal dimensions, thread diameter and length of insert
Segments, disc wheels, cylindrical wheels cemented, bolted or clamped to a support plate	—	manufacturer's code e.g. drawing number

Ensure correct conversion of imperial bore sizes, e.g. 7/8" is 22.23 mm not 22.2 mm or 22 mm

To specification 3: Specification mark

Specification mark in accordance with ISO 525. Minimum information required: Abrasive type, grain size, grade or hardness, type of bond and use of reinforcement e.g. A46KV, A24SBF

To specification 4: Maximum operating speed

Should specify the maximum possible speed that the wheel can be safely used at. This is the speed that is used to derive the test requirements. Should be taken from the table in Annex E of EN 12413. Maximum operating speed in metres per second.

To specification 5: Maximum permissible speed of rotation

Maximum permissible speed of rotation in 1/min. The speed of rotation marked on the product should be according to Annex E of EN 12413.







For mounted wheels and points, the maximum permissible speed of rotation as a function of the relevant overhang and the minimum length of spindle within the collet shall be given. An example for a calculation method for the determination of the permissible speeds of rotation is given in Annex B of EN 12413.

To specification 6: Declaration of conformity

For declaration of conformity, the abrasive products shall be marked with: EN 12413

To specification 7: Restriction of use

Shall be given in full length or by pictogram:

Not permitted for hand-held machines	Not permitted for wet grinding	Not permitted for face grinding	Only permitted for totally enclosed working area	Only permitted with back-up pad	Only permitted for grinding at an angle greater than 10°
This restriction only applies to abrasive products not for use on hand-held machines but capable of being mounted on such machines	Abrasive product only suitable for dry grinding	Abrasive product only for use on cutting-off. This restriction only applies to abrasive products for use on hand-held machines	Abrasive product only for use on stationary machines the guarding of which is accepted as totally enclosed working area	Abrasive product only for use with additional appropriate back-up pad	Not to be used for grinding at an angle less than 10°
					
Colour of pictograms according to EN ISO 7010 and ISO 3864-2 wherever possible					

Abrasive products for which certain grinding procedures, grinding machines and certain applications have to be obeyed shall be marked with the corresponding restrictions of use according to Table A.2 of EN 12413.







The restrictions of use shall be given in full length (Table A.2, column 1) or in the form of a pictogram (Table A.2, column 3).

To specification 8: Traceability code

To ensure traceability and identification, the abrasive products shall be marked with a traceability code which enables to link an individual product to a limited production quantity. The traceability code may be expressed by e.g. a production/batch number, expiry date or series number.

To specification 9: Safety signs

If necessary, the safety signs shall be in accordance with EN ISO 7010. See Table A.3.

Description	Safety signs
Follow instruction ^a	
Use ear protection	
Use eye protection	
Use mask	
Use hand protection	
Do not use if damaged	
Colour of pictograms according to EN ISO 7010 and ISO 3864-2 wherever possible	
^a This safety symbol is recommended but not mandatory.	

To specification 10: oSa Logo

All products should be marked:



By marking oSa on the product, the manufacturer is confirming that it meets the requirements of EN 12413 and the additional requirements stipulated in the Technical Annex of oSa.

To specification 11: Private label number

All products bearing the oSa logo on private label products must also bear the five-digit oSa private label number.

Additional inscriptions

- Abrasive products for hand-held machines with type of bond B and BF: date of expiry. The date of expiry shall at the longest be within 3 years from the date of manufacture. It is expressed as month and year e.g. 04/2023.
- Oriented wheels: wheels need to be mounted in a specific position on the spindle shall be marked in such a way as to clearly indicate this position.
- Multiple or gang mounted wheels: shall be marked in a manner to assure they are correctly mounted on the machine spindle, additionally each wheel shall be identified as being part of that set.
- Magnesite bond: date of expiry. The date of expiry shall at the longest be within 1 year from the date of manufacture. It is expressed as month and year e.g. 04/2023.

Execution of the marking following point 4.4 “Conditions of Use for the oSa Trademark”

The additional marking of abrasive products and packaging bearing the oSa mark with designations, symbols, logos, seals, numbers, etc. of third parties, in particular with those of other testing or safety institutes such as the DSA, MPA or TÜV is not permitted, unless there is a subsequent national legal requirement or other objective reasons which justify the need for such an additional marking. It is, however, permitted to mark abrasive products and packaging with the applicant's own company designations, symbols, etc. which are clearly and unambiguously recognizable as such as well as national product standards, provided they are adhered to and do not contradict the EN safety standards.

It is permitted to mark abrasive products with imperial in addition to metric measurements. However, the exclusive marking with imperial measurements is not permitted. Furthermore, type designations according to ANSI (Type 1 for cutting-off wheels) are permitted if the correct ISO type designation for cutting-off wheels (ISO Type 41 or Type 42) is also marked. The additional marking with ANSI TYPE 1 should preferably be connected to the designation of imperial measurements.

Upon the oSa's request, a sample of the abrasive products or packaging marked in this way has to be presented to the oSa-office.