BRITISH STANDARD

BS EN 4637:2010

Aerospace series — Blast media — White corundum

ICS 49.040

National foreword

This British Standard is the UK implementation of EN 4637:2010.

The UK participation in its preparation was entrusted to Technical Committee ACE/65, Non-metallic materials for aerospace purposes (excluding textiles).

A list of organizations represented on this committee can be obtained on request to its secretary.

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EUROPEAN STANDARD

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English Version

Aerospace series - Blast media - White corundum

Série aérospatiale - Produit de projetage - Corindon blanc

Luft- und Raumfahrt - Strahlmittel - Edelkorund, weiß

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 4637:2010) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2010, and conflicting national standards shall be withdrawn at the latest by October 2010.

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1 Scope

This standard specifies the characteristics of white corundum used as blast media for aerospace applications.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 8486-1, *Bonded abrasives — Determination and designation of grain size distribution — Part 1: Macrogrits F4 to F220*

ISO 8486-2, *Bonded abrasives — Determination and designation of grain size distribution — Part 2: Microgrits F230 to F2000*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
d_{s3} max.
the grain size (theoretical grain diameter) must not exceed the maximum permissible d_{s3}-value at the 3 % point of the grain size distribution curve

3.2
d_{s50}
the median grain size (theoretical grain diameter) must be within the specified tolerances of the d_{s50}-value at the 50 % point of the grain size distribution curve

3.3
d_{s94} min.
the grain size (theoretical grain diameter) must at least attain the d_{s94}-value at the 94 % point of the grain size distribution curve

4 Characteristics

The characteristics for each product are specified in the following annexes.

Annex A
(normative)

Characteristics of corundum

DESIGNATION: White corundum F 12 **GRAIN SIZE:** 1,20 mm to 2,80 mm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:** 2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565		
TEST SIEVES - APERTURE	2,80 mm	2 mm	1,40 mm
% RESIDUE	0	≤ 20	≥ 70
TEST SIEVES - APERTURE	1,20 mm		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 14 **GRAIN SIZE:** 1 mm to 2,40 mm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE**: Angular and massive grain

5 **HARDNESS** (typical values)**:** 2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565		
TEST SIEVES - APERTURE	2,40 mm	1,70 mm	1,20 mm
% RESIDUE	0	≤ 20	≥ 70
TEST SIEVES - APERTURE	1 mm		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 16 **GRAIN SIZE:** 850 µm to 2 mm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565		
TEST SIEVES - APERTURE	2 mm	1,40 mm	1 mm
% RESIDUE	0	≤ 20	≥ 70
TEST SIEVES - APERTURE	850 µm		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 20 **GRAIN SIZE:** 710 µm to 1,70 mm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 ORIGIN: Artificial

2 CHEMICAL COMPOSITION:
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 CONTROLLED CHEMICAL COMPONENTS: None

4 GRAIN SHAPE: Angular and massive grain

5 HARDNESS (typical values)**:** 2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 DENSITY:
- True with pyknometer
- ≥ 3 940 kg/m^3

7 GRAIN SIZE DISTRIBUTION:

	GRAIN SIZE DISTRIBUTION ISO 565		
TEST SIEVES - APERTURE	1,70 mm	1,18 mm	850 µm
% RESIDUE	0	≤ 20	≥ 70
TEST SIEVES - APERTURE	710 µm		
% REMAINDER	≤ 3		

8 METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION: according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 SPECIAL INSTRUCTIONS: None.

DESIGNATION: White corundum F 22 **GRAIN SIZE:** 600 µm to 1,40 mm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565		
TEST SIEVES - APERTURE	1,40 mm	1 mm	710 µm
% RESIDUE	0	≤ 20	≥ 70
TEST SIEVES - APERTURE	600 µm		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 24 **GRAIN SIZE:** 500 µm to 1,18 mm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565		
TEST SIEVES - APERTURE	1,18 mm	850 µm	600 µm
% RESIDUE	0	≤ 25	≥ 65
TEST SIEVES - APERTURE	500 µm		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 30 **GRAIN SIZE:** 430 µm to 1 mm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565		
TEST SIEVES - APERTURE	1 mm	710 µm	500 µm
% RESIDUE	0	≤ 25	≥ 65
TEST SIEVES - APERTURE	425 µm		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 36 **GRAIN SIZE:** 360 µm to 850 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:** 2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	850	600	425
% RESIDUE	0	≤ 25	≥ 65
TEST SIEVES - APERTURE	355		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 40 **GRAIN SIZE:** 300 µm to 710 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	710	500	355
% RESIDUE	0	≤ 30	≥ 65
TEST SIEVES - APERTURE	300		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 46 **GRAIN SIZE:** 250 µm to 600 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPEC**T: **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	600	425	300
% RESIDUE	0	≤ 30	≥ 65
TEST SIEVES - APERTURE	250		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 54 **GRAIN SIZE:** 210 µm to 500 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	500	355	250
% RESIDUE	0	≤ 30	≥ 65
TEST SIEVES - APERTURE	212		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 60 **GRAIN SIZE:** 180 µm to 430 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	425	300	212
% RESIDUE	0	≤ 30	≥ 65
TEST SIEVES - APERTURE	180		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 70 **GRAIN SIZE:** 150 µm to 360 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	355	250	180
% RESIDUE	0	≤ 25	≥ 65
TEST SIEVES - APERTURE	150		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None

DESIGNATION: White corundum F 80 **GRAIN SIZE:** 130 µm to 300 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:** 2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	300	212	150
% RESIDUE	0	≤ 25	≥ 65
TEST SIEVES - APERTURE	125		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 90 **GRAIN SIZE:** 110 µm to 250 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	250	180	125
% RESIDUE	0	≤ 20	≥ 65
TEST SIEVES - APERTURE	106		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 100 **GRAIN SIZE:** 80 µm to 210 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:** 2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	212	150	106
% RESIDUE	0	≤ 20	≥ 65
TEST SIEVES - APERTURE	75		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None

DESIGNATION: White corundum F 120 **GRAIN SIZE:** 60 µm to 180 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	180	125	90
% RESIDUE	0	≤ 20	≥ 65
TEST SIEVES - APERTURE	63		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION**: according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS**: None.

DESIGNATION: White corundum F 150 **GRAIN SIZE:** 50 µm to 150 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	150	106	63
% RESIDUE	0	≤ 15	≥ 65
TEST SIEVES - APERTURE	45		
% REMAINDER	≤ 3		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION**: according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS**: None.

DESIGNATION: White corundum F 180 **GRAIN SIZE:** 50 µm to 130 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	125	90	63
% RESIDUE	0	≤ 15	≥ 40
TEST SIEVES - APERTURE	53		
% REMAINDER	unspecified		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 220 **GRAIN SIZE:** 50 µm to 110 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

	GRAIN SIZE DISTRIBUTION ISO 565 (µm)		
TEST SIEVES - APERTURE	106	75	53
% RESIDUE	0	≤ 15	≥ 40
TEST SIEVES - APERTURE	45		
% REMAINDER	unspecified		

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** according to ISO 8486-1 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 230 **GRAIN SIZE:** 34 µm to 82 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	82	53 ± 3,0	34

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 240 **GRAIN SIZE:** 28 µm to 70 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:** 2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	70	44,5 ± 2,0	28

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 280 **GRAIN SIZE:** 22 µm to 59 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	59	36,5 ± 1,5	22

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 320 **GRAIN SIZE:** 16,5 µm to 49 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 ORIGIN: Artificial

2 CHEMICAL COMPOSITION:
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 CONTROLLED CHEMICAL COMPONENTS: None

4 GRAIN SHAPE: Angular and massive grain

5 HARDNESS (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 DENSITY:
- True with pyknometer
- ≥ 3 940 kg/m^3

7 GRAIN SIZE DISTRIBUTION:

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	49	29,2 ± 1,5	16,5

8 METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION: photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 SPECIAL INSTRUCTIONS: None.

DESIGNATION: White corundum F 360 **GRAIN SIZE:** 12 µm to 40 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	40	22,8 ± 1,5	12

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 400 **GRAIN SIZE:** 8 µm to 32 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	32	17,3 ± 1,0	8

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 500 **GRAIN SIZE:** 5 µm to 25 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	25	12,8 ± 1,0	5

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 600 **GRAIN SIZE:** 3 µm to 19 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	19	9,3 ± 1,0	3

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

DESIGNATION: White corundum F 800 **GRAIN SIZE:** 2 µm to 14 µm	**Main use:** (for information) – Surface preparation – Surface reconditioning
DESCRIPTION: fused aluminium oxide **ASPECT:** powder **MATERIAL:** Ground corundum **COLOUR:** White	

1 **ORIGIN:** Artificial

2 **CHEMICAL COMPOSITION:**
- Alumina ≥ 99 %
- Free silica < 0,1 %

3 **CONTROLLED CHEMICAL COMPONENTS:** None

4 **GRAIN SHAPE:** Angular and massive grain

5 **HARDNESS** (typical values)**:**
2 100 kg/mm^2 (Knoop hardness)
9 (Mohs hardness)

6 **DENSITY:**
- True with pyknometer
- ≥ 3 940 kg/m^3

7 **GRAIN SIZE DISTRIBUTION:**

THEORETICAL GRAIN DIAMETER	d_{s3} max.	d_{s50}	d_{s94} min.
VALUES (µm)	14	6,5 ± 1,0	2

8 **METHOD OF DETERMINATION OF GRAIN SIZE DISTRIBUTION:** photosedimentometer according to ISO 8486-2 (for sampling methods, see Annexes B and C of this standard).

9 **SPECIAL INSTRUCTIONS:** None.

Annex B
(normative)

Tyler type splitting method

Pass the sample in the splitter (see below). Take care to use the full width, oscillate the stream of corundum from each end of the splitter.

We obtain two parts with an equal grain distribution size.

Repeat the previous steps until all sample is split into two parts.

Repeat the previous steps for one of these two parts and continue the splitting until the needed volume for grain size distribution test method is obtained.

Do not add or remove particles after each splitting.

NOTE The splitting method with a splitter should be used. It is equivalent to stack splitting method (see Annex C) but quicker and more convenient to use.

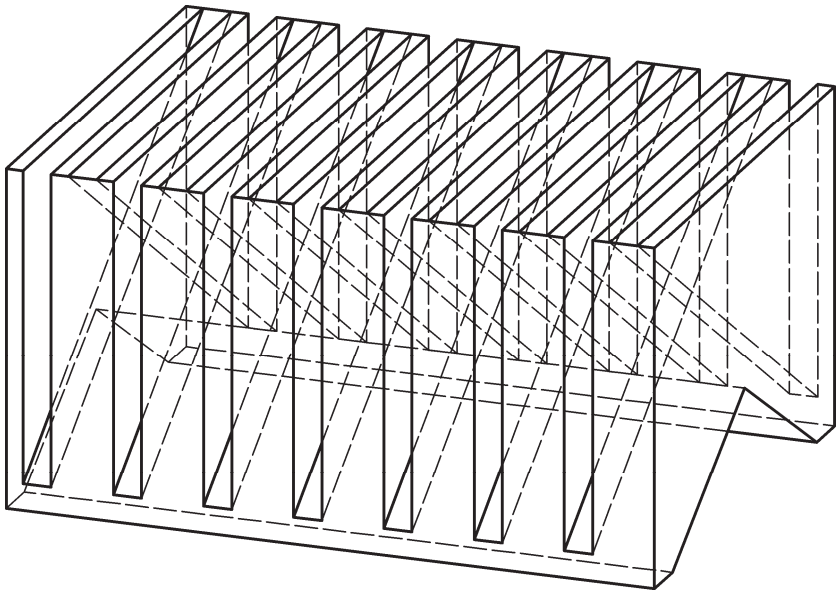

Figure B.1 — Schematic diagram of the splitting system

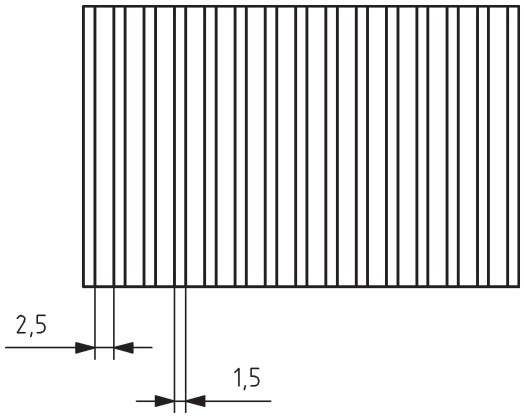

Figure B.2 — Above view of the splitting area

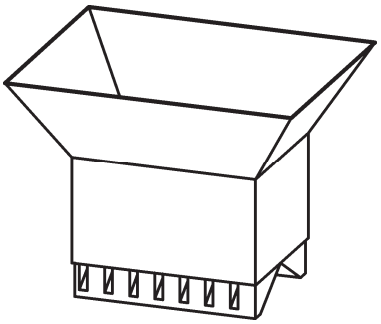

Figure B.3 — General view

Annex C
(normative)

Stack Splitting Method

Put the whole sample on a paper sheet, or better on a plastic sheet, with dimensions equal or greater than 50 cm × 50 cm.

Spread the sample on the bigger surface as possible, and split roughly into four equal parts with a blade (sheet steel, trowel).

Keep only one part without forgetting the smallest particles (they could adhere to the sheet).

Repeat this step on the kept stack until the needed volume for grain size distribution test method is obtained.

Do not add or remove particles after each splitting.

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