

1. Name and identification code: (AG)-0/63-T-A
2. Name and contact address of the manufacturer: SIDENOR ACEROS ESPECIALES S.L. Barrio Ugarte s/n 48970- Basauri (BIZKAIA)
3. Intended use: Aggregates for unbound materials for use in civil engineering work and road construction.
4. System of assessment and verification of constancy of performance: SISTEMA 2+.
5. Notified body:
  - Name and no: TECNALIA R&I CERTIFICACIÓN, no 1239
  - Task performed: CONTINUOUS ASSESSMENT OF FACTORY PRODUCTION CONTROL
  - Assessment system: SISTEMA 2+
  - Document issued: FPC CERTIFICATE no 1239/CPR/0821201
  - Date of issue: 17/02/2017
6. Certified standard: EN 13242:2002+A1:2007
7. Declared performances:

ESSENTIAL CHARACTERISTICS	PERFORMANCE
<b>Particle shape, size and density</b>	
Particle size .....	0/63 (d/D)
Aggregate grading category.....	G <sub>A</sub> 75
Aggregate grading tolerance category for intermediate sieve .....	GT <sub>A</sub> 25
Particle shape .....	F110
Particle density .....	3.9 ± 0.2 Mg/m <sup>3</sup>
<b>Cleanliness:</b>	
Fines content .....	f3
Sand equivalent .....	NPD
Methylene blue .....	NPD
<b>Percentage of crushed or broken coarse aggregate particles</b> .....	
	C <sub>90/3</sub>
<b>Resistance to coarse aggregate fragmentation / crushing</b> .....	
	LA <sub>20</sub>
<b>Volume stability:</b>	
Steelmaking slag aggregates volume stability.....	V <sub>5</sub>
<b>Composition / Content</b>	
Water-soluble sulphates .....	AS <sub>0.2</sub>
Total sulphur .....	S <sub>1</sub>
Humus content .....	Complies
Lightweight pollutants .....	Complies
Heavy metal leaching .....	Complies*
Total metal content .....	Complies**
<b>Freeze-thaw resistance</b> .....	
	NPD
<b>Durability against weathering</b> .....	
	NPD
<b>Durability against studded tires</b> .....	
	NPD
<b>Durability against thermal shock</b> .....	
	NPD

\* Limit values for heavy metal leaching (mg/kg), in accordance with Point 3 of Annex II to Decree 64/2019. Unbound applications for fully impermeable surfaces (type 3)

Sb	As	Ba	Cd	Cr	Cr IV	Cu	Hg	Mo	Ni	Pb	Se	Zn	V
≤0.08	≤0.6	≤25	≤0.05	≤2	≤0.4	≤3	≤0.01	≤2.8	≤0.5	≤0.6	≤0.4	≤5	≤4

\*\* Total metal content limit values for unbounded applications (mg/kg), in accordance with Point 2 of Annex II to Decree 64/2019.

As	Cd	Cr	Cr IV	Cu	Hg	Mo	Ni	Pb	Zn	V
≤30	≤5	≤10000	≤8	≤10000	≤4	≤75	≤110	≤120	≤10000	≤1000

8. Other use-relevant results not included in EN 13043:2002+/AC:2004 standard:
  - Expansivity..... ≤0.5%
  - Free lime content .....
  - Magnesium oxide content .....
  - Aging index result .....
  - Water Absorption.....

- The product performances identified in point 1 are in conformity with the declared performances in point 7.
- This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 2.



1. Name and identification code: (AG)-0/20-T-A
2. Name and contact address of the manufacturer: SIDENOR ACEROS ESPECIALES S.L. Barrio Ugarte s/n 48970- Basauri (BIZKAIA)
3. Intended use: Aggregates for unbound materials for use in civil engineering work and road construction.
4. System of assessment and verification of constancy of performance: SISTEMA 2+.
5. Notified body:
  - Name and no: TECNALIA R&I CERTIFICACIÓN, no 1239
  - Task performed: CONTINUOUS ASSESSMENT OF FACTORY PRODUCTION CONTROL
  - Assessment system: SISTEMA 2+
  - Document issued: FPC CERTIFICATE no 1239/CPR/0821201
  - Date of issue: 18/01/2019
6. Certified standard: EN 13242:2002+A1:2007
7. Declared performances:

ESSENTIAL CHARACTERISTICS	PERFORMANCE
---------------------------	-------------

**Particle shape, size and density**  
 Particle size .....0/20 (d/D)  
 Aggregate grading category.....GA 75  
 Aggregate grading tolerance category for intermediate sieve .....GT<sub>A</sub>25  
 Particle shape.....F110  
 Particle density .....3.9 ± 0.2 Mg/m<sup>3</sup>

Sieve	20	14	10	6.3	4	2	1	0.5	0.25	0.063
% passing	90-100	85-100	60-100	45-85	30-60	5-35	0-20	0-10	0-5	<3

**Cleanliness:**  
 Fines content .....f3  
 Sand equivalent .....NPD  
 Methylene blue.....NPD  
**Percentage of crushed or broken coarse aggregate particles**.....C<sub>90/3</sub>  
**Resistance to coarse aggregate fragmentation / crushing**.....LA<sub>20</sub>  
**Volume stability:**  
 Steelmaking slag aggregates volume stability.....V<sub>5</sub>  
**Composition / content**  
 Water-soluble sulphates.....AS<sub>0.2</sub>  
 Total sulphur.....S<sub>1</sub>  
 Humus content .....Complies  
 Lightweight pollutants.....Complies  
 Heavy metal leaching.....Complies\*  
 Total metal content.....Complies\*\*  
**Freeze-thaw resistance**.....NPD  
**Durability against weathering**.....NPD  
**Durability against studded tyres**.....NPD  
**Durability against thermal shock**.....NPD

\* Limit values for heavy metal leaching (mg/kg), in accordance with Point 3 of Annex II to Decree 64/2019. Unbound applications for fully impermeable surfaces

Sb	As	Ba	Cd	Cr	Cr IV	Cu	Hg	Mo	Ni	Pb	Se	Zn	V
≤0.08	≤0.6	≤25	≤0.05	≤2	≤0.4	≤3	≤0.01	≤2.8	≤0.5	≤0.6	≤0.4	≤5	≤4

\*\*Total metal content limit values for unbound applications (mg/kg), in accordance with Point 2 of Annex II to Decree 64/2019.

As	Cd	Cr	Cr IV	Cu	Hg	Mo	Ni	Pb	Zn	V
≤30	≤5	≤10000	≤8	≤10000	≤4	≤75	≤110	≤120	≤10000	≤1000

8. Other use-relevant results relevant not included in EN 13043:2002+/AC:2004 standard:
  - Expansivity.....≤0.5%
  - Free lime content.....≤0.5%
  - Magnesium oxide content.....≤7.5%
  - Aging index result.....<1%
  - Water Absorption.....2%

- The product performances identified in point 1 are in conformity with the declared performances in point 7.
- This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 2.



Emilio Hidalgo Perez  
 Environment and Energy Manager

Basauri, April 30th, 2019