

1. Name and identification code: (AF)-0/4-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 bituminous mixtures and surface treatments for roads, airfields and other trafficked areas
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 13043:2002+AC:2004
7. Declared performances:

ESSENTIAL CHARACTERISTICS	PERFORMANCE
Particle shape, size and density	
Particle size.....	0/4 (d/D)
Aggregate grading category.....	G _F 85
Aggregate grading tolerance category for intermediate sieve	G _{TC} 20
Particle shape	NPD
Particle density.....	3.9 ± 0.2 Mg/m ³
Cleanliness:	
Fines content.....	f ₃
Sand equivalent	>80
Methylene blue.....	MB _F NT
Percentage of crushed or broken coarse aggregate particles	NPD
Affinity to bituminous binders.....	NPD
Resistance to coarse aggregate fragmentation / crushing	NPD
Resistance to coarse aggregate polishing, abrasion, wear:	
Resistance to coarse aggregate polishing for wearing courses	NPD
Resistance to surface abrasion.....	NPD
Resistance to coarse aggregate wear.....	NPD
Resistance to thermal shock.....	NPD
Volume stability	
Disintegration of air-cooled blast furnace slag dicalcium silicate.....	-
Disintegration of air-cooled blast furnace slag iron.....	-
Steelmaking slag aggregate volume stability.....	V _{3.5}
Composition/ Content:	
Heavy metal leaching.....	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 1 of Annex II to Decree 64/2019. Bound applications (type 1)

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%
Total sulphur	<1%
Water-soluble sulphates.....	<0.2%
Humus content.....	Negative
Lightweight pollutants.....	<0%
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

- Name and identification code: (AG)-4/8-T-A
- Name and contact address of the manufacturer: SIDENOR ACEROS ESPECIALES S.L. Barrio Ugarte s/n 48970- Basauri (BIZKAIA)
- Intended use: Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas
- System of assessment and verification of constancy of performance: SISTEMA 2+.
- 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
- Certified standard: EN 13043:2002+AC:2004
- Declared performances:

ESSENTIAL CHARACTERISTICS	PERFORMANCE
Particle shape, size and density	
Particle size.....	4/8 (d/D)
Aggregate grading category.....	G _c 85/20
Aggregate grading tolerance category for intermediate sieve.....	G _{25/15}
Particle shape.....	Fl ₁₀
Particle density.....	3.9 ± 0.2 Mg/m ³
Cleanliness:	
Fines content.....	f ₁
Sand equivalent	>80
Methylene blue.....	NPD
Percentage of crushed or broken coarse aggregate particles	C _{100/0}
Affinity to bituminous binders	NPD
Resistance to coarse aggregate fragmentation / crushing	LA ₂₀
Resistance to coarse aggregate polishing, abrasion, wear:	
Resistance to coarse aggregate polishing for wearing courses	PSV ₅₆
Resistance to surface abrasion.....	NPD
Resistance to coarse aggregate wear	NPD
Resistance to thermal shock	NPD
Volume stability	
Disintegration of air-cooled blast furnace slag dicalcium silicate	-
Disintegration of air-cooled blast furnace slag iron	-
Steelmaking aggregate slag volume stability.....	V _{3.5}
Composition/ Content:	
Heavy metal leaching.....	Complies*
Freeze-thaw resistance	MS ₁₈
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 1 of Annex II to Decree 64/2019. Bound applications (type 1)

- 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%
Total sulphur	<1%
Water-soluble sulphates.....	<0.2%
Humus content	Negative
Lightweight pollutants.....	<0%
Water Absorption.....	2%

- The product performances identified in point 1 are in conformity with the declared performances in point 7.
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Emilio Hidalgo Perez
Environment and Energy Manager

Basauri, April 30th, 2019

1. Name and identification code: (AG)-8/16-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 bituminous mixtures and surface treatments for roads, airfields and other trafficked areas
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 13043:2002+AC:2004
7. Declared performances:

ESSENTIAL CHARACTERISTICS	PERFORMANCE
Particle shape, size and density	
Particle size.....	8/16 (d/D)
Aggregate grading category.....	G _c 85/20
Aggregate grading tolerance category for intermediate sieve.....	G _{25/15}
Particle shape.....	Fl ₁₀
Particle density	3.9 ± 0.2 Mg/m ³
Cleanliness:	
Fines content.....	f ₁
Sand equivalent	>80
Methylene blue.....	NPD
Percentage of crushed or broken coarse aggregate particles	C _{100/0}
Affinity to bituminous binders	NPD
Resistance to coarse aggregate fragmentation / crushing	LA ₂₀
Resistance to coarse aggregate polishing, abrasion, wear:	
Resistance to coarse aggregate polishing for wearing courses	PSV ₅₆
Resistance to surface abrasion.....	NPD
Resistance to coarse aggregate wear	NPD
Resistance to thermal shock	NPD
Volume stability	
Disintegration of air-cooled blast furnace slag dicalcium silicate	-
Disintegration of air-cooled blast furnace slag iron	-
Steelmaking aggregate slag volume stability.....	V _{3,5}
Composition/ Content:	
Heavy metal leaching.....	Complies*
Freeze-thaw resistance	MS ₁₈
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 1 of Annex II to Decree 64/2019. Bound applications (type 1)

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%
Total sulphur.....	<1%
Water-soluble sulphates.....	<0.2%
Humus content	Negative
Lightweight pollutants	<0%
Water Absorption.....	2%

- The product performances identified in point 1 are in conformity with the declared performances in point 7.
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Basauri, April 30th, 2019