



TEST CATALOGUE

Aggregates
Soil
Asphalt
Bitumen
Ceramics

Concrete
Hydraulic binders
Natural stone
Pigments & Road marking
On site tests



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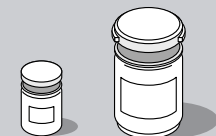
Through our pick-up service, your materials arrive in our laboratories without any problems.



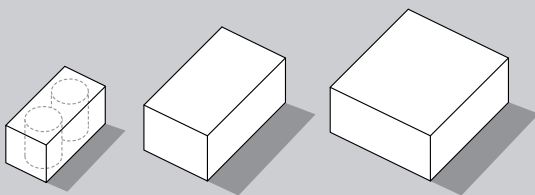
Bags (aggregates, asphalt)



Metal containers: S-M-L



Plastic containers: S-L



Cardboard boxes: S-M-L

AGGREGATES

Chemical tests

Alkali content (ICP-AES)	CUR-aanbeveling 89 § 6.2 (2018)	B	
	EN 196-2	B	
	LPC n° 37	B	
	XP P 18-544	B	L
CaCO ₃ content	EN 196-2	B	
	Geos	B	
Acid-soluble chloride salts	EN 1744-5	B	
Water-soluble chloride salts	EN 1744-1 § 8	B	L
	NEN 5921	B	
	EN 1744-1 § 7	B	
Carbonates (CO ₂)	EN 196-2	B	
Bulk crushing resistance	Geos		
Dangerous substances	EN 1423 Annex I	B	
Free lime	EN 1744-1 § 18.4	B	L
Water solubility	EN 1744-1 § 16.1		L
Hydrochloric acid test	NBN 589-209 (1969)	B	
Dispersion with nitric acid, hydrochloric acid and HF	Geos	B	
Discharge by fusion with lithium tetraborate	Geos	B	
Discharge with nitric acid and hydrochloric acid (aqua regia)	Geos	B	
Chemical composition (ICP-AES)	Geos	B	
Loss on ignition	EN 1744-1 § 17	B	L
	ISO 3262-1		
Metallic aluminium and zinc	CUR-aanbeveling 116 Annex A (2012)		
MgCO ₃ content	EN 196-2		
Organic contaminators (fulvo acid)	EN 1744-1 § 15.2	B	L
Organic matter (H ₂ O ₂)	NBN 589-207 Par. 3 (1969)	B	
	PTV 406 Annex C		
	SB 250 (3.1) Hfdst. XIV § 4.15	B	
	NBN B 11-256	B	
Organic contaminators (humus)	EN 1744-1 § 15.1	B	L
Organic matter (K ₂ Cr ₂ O ₇)	NBN 589-207 Par. 4 (1969)	B	
	NF P 94-055		L
Organic contaminators (mortar)	EN 1744-1 § 15.3	B	
pH	ISO 787-9	B	
Acid soluble sulfides	EN 1744-1 § 13		L
SiO ₂ (XRF)	EN 196-2	B	
Acid-soluble sulfates (IC)	EN 1744-1	B	L

accreditations : B - BELAC (ISO 17025) / A - AASHTO / L - LABORROUTE



AGGREGATES

Water-soluble sulfates (IC)	EN 1744-1	B	L
Total sulfur content (ICP-AES)	EN 1744-1 § 11	B	L
Total organic carbon	EN 13639		

Petrographical tests

Potential Alkali-Silica Reactivity of
Combinations of Cementitious Materials
and Aggregate

(accelerated mortar-bar method)	ASTM C1567		
ASR-sensitivity of aggregates by PFM	CUR-aanbeveling 89 § 7.2 (2018)	B	
	XP P 18-543	B	L
Petrographic examination of aggregates	FD P 18-542		
	ASTM C295		
	BS 812 part 104		
	EN 932-3	B	L
Geological file	TRA 411 (Annex C)		
Power's scale of roundness	Geos		
Qualitative XRD analysis	Geos		
Quantitative XRD analysis	Geos		

Physical tests

Accelerated test on mortar by autoclave	NF P 18-594 § 5.1	B	L
Accelerated test on mortar by concrete prism test	CUR-aanbeveling 89 § 7.3.2 (2006)	B	
	CUR-aanbeveling 89 § 7.3.2 (2018)	B	
	NF P 18-594 § 6		
	CUR-aanbeveling 89 § 7.3.1 (2018)		
	DAfstb Alkali-Richtlinie, 2007-2, Teil 3 § 5.2		
	Infrabel Spécification tech. No. L23 (2018)		
	RILEM TC 106-2	B	
Reduction of a sample to laboratory size	EN 932-2 (excl. § 9 and § 12)	B	
Abrasiveness And Grindability Test	NF P18-579		L
Affinity between aggregate and bitumen	EN 12697-11	B	L
Aggregate type	Geos		
Accelerated test by "Microbar"	NF P 18-594 § 5.2	B	L
Accelerated test on mortar by UAMBT	ASTM C 1260		
Atterberg limits	EN ISO 17892-12	B	L
	NF P 94-051		
	Afl. PM - Hfdst. 01 (01.03)	B	
Clay pellets	NF P 18 545 § 10.1.6		
Determination of impurities and clay pellets	XP P 18 546		L
Percentage of crushed and broken surfaces	EN 933-5	B	L
	EN 13055 Annex A		



AGGREGATES

Loose bulk density (Annex A)	EN 1097-3 Annex A	B	L
Particle density	EN 1097-6 Annex B	B	L
	EN 1097-6 §7	B	L
	EN 1097-6 §8	B	L
	EN 1097-6 §9	B	L
Loose bulk density	EN 1097-3	B	L
Pre-dried particle density (31,5 - 63 mm)	EN 1097-6 Annex A	B	L
Particle density and water absorption (31,5 - 63 mm)	EN 1097-6 Annex B	B	L
	EN 1097-6 §7	B	L
	EN 1097-6 §8	B	L
	EN 1097-6 §9	B	L
Particle density and water absorption	ASTM C127		
Particle density and water absorption (w/ fines)	EN 1097-6	B	L
Designation of aggregates	EN 12620		
	EN 13139		
	RAW (2020) Hfdst. 22 § 06		
	RAW (2020) Hfdst. 83 § 16.01		
Resistance to disintegration	EN 13055-1 Annex B		
Drying shrinkage	EN 1367-4	B	
Fines content	EN 12620		
Flakiness index	EN 933-3	B	L
Flow coefficient	EN 933-6 § 8	B	L
Foreign matter in reclaimed asphalt	EN 12697-42		
Freeze-thaw resistance	EN 1367-1	B	L
Friability index	EN 1423 Annex G	B	
	NF P18-576		
Freeze-thaw resistance	EN 13055-1 Annex C		
Prohibited impurities	NF P 18 545 § 3.43	B	
Reactive iron sulfide particle	EN 1744-1 § 14.1	B	L
Calculation of control frequency (k-value)	BRL 9324		
Los Angeles coefficient (LA)	ASTM C535		
	EN 1097-2	B	L
	NF P 18-572	B	
	EN 1097-2	B	L
Lightweight contaminators	EN 1744-1 § 14.2	B	L
Methylene blue test	EN 933-9	B	L
	NEN 5941		
	NF P 94-068		L
	EN 933-9 Annex A	B	L
	Verhoef		
Micro-Deval coefficient	EN 1097-1	B	L
	NF P 18-572	B	
	EN 1097-1	B	L



AGGREGATES

Magnesium sulfate test	ASTM C88		
	EN 1367-2		
Particle size distribution	EN 933-1	B	L
	RAW (2020) proef 11	B	
Polished stone value (PSV)	EN 1097-8	B	L
Sand equivalent test	EN 933-8	B	L
	EN 933-8 Annex A	B	L
Shape-index	EN 933-4	B	
Percentage of shells	EN 933-7	B	L
	FM 5-555		
Shell content	BS 812 part 106		
Staining iron and vanadium compounds	CUR-aanbeveling 100 Annex H (2004)		
	NEN 5923		
Comparison of the particle size with Talbot curve	Geos		
Thermal shock resistance	EN 1367-5	B	
Vialit plate shock test - mechanical adhesion	EN 12272-3 § 4.3.2.2		
Water absorption	EN 1097-6 §7	B	L
	EN 1097-6 §8	B	L
	EN 1097-6 §9	B	L
	ASTM C127		
Water content	EN 1097-5	B	L

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GEOS laboratories

Building lime

Sulfate content (IC)	EN 459-2 §5.3		
CaO content	EN 459-2 §5.8	B	
Ca(OH) ₂ content	EN 459-2 §5.8	B	
Standard mortar by mass and water demand for values of flow and penetration	EN 459-2 §6.8		
Grading of filler (air jet)	EN 459-2 §6.2	B	

Fillers

Compressive strength (28 days)	EN 196-1	B	
Accelerated test on mortar by UAMBT	Geos		
Bitumen number	EN 13179-2	B	
Influence on soundness (Châtelier)	EN 196-3 §7	B	
Chloride	EN 196-2 §4.5.16	B	
Particle density of filler	EN 1097-7	B	L
Water susceptibility of fillers	EN 1744-4	B	
Water solubility of filler	EN 1744-1 § 16.2		L
Solubility in hydrochloric acid	PTV 812 0.3NL		
Loss on ignition	EN 196-2 §4.4.1	B	
	EN 196-2	B	
Soluble phosphate content	EN 450-1 Annex C	B	



AGGREGATES

Grading of filler (air jet)	EN 933-10	B	
Delta ring and ball test	EN 13179-1	B	L
Sulfate content (IC)	EN 196-2	B	
Influence on the initial setting time	EN 196-3 §6	B	
Voids of dry compacted filler	EN 1097-4	B	L

Agressivity towards concrete (groundwater)

Aggressive carbon dioxide content in water	EN 13577		
NH ₄ ⁺	ISO 7150-1		
pH	ISO 4316	B	
Assessment of groundwater for attack on concrete	NBN EN 206-1		

Recycled aggregates

Asbestos in recycled aggregates	CMA/2/II/C.2		
	CMA/2/II/C.3		
Asbest screening	OVAM Eenheidsreglement bijlage 2		
Classification test	RAW (2020) proef 35	B	
	CMA/2/II/A.22	B	
	CMA/2/II/A.23	B	
	EN 933-11	B	L
	PTV 406 Annex I	B	
	406 Annex J	B	
	RAW (2020) proef 35	B	
Water-soluble sulfates in rec. aggregates (IC)	EN 1744-1	B	L
Influence on the initial setting time	EN 1744-6	B	
Chloride	EN 1744-5	B	

Slag

Dicalcium silicate disintegration of blast-furnace slag	EN 1744-1 § 19.1		L
Iron disintegration of blast-furnace slag	EN 1744-1 § 19.2		L
Expansion of steel slag (168 h)	CME 01.12	B	
	EN 1744-1 § 19.3	B	L
Chloride	EN 1744-5	B	
Fineness modulus	RAW (2020) proef 15		
	EN 12620 - Annex B		
Foreign matter in steel slag	BRL 9310 § 5.6.1		



Chemical tests

Acidity by Baumann-Gully	EN 16502	
Extraction of water soluble nutrients and elements (Cl- by titration)	EN 13652	
Hydrochloric acid test	RAW (2020) proef 37	B
Loss on ignition, organic matter and CaCO ₃ -content	RAW (2020) proef 28	B
Mg ²⁺ (ICP-AES)	ISO 7980	
Organic matter (CCl ₃ COOH)	SB 250 (3.1) Hfdst. XIV § 3.4	
Organic matter (H ₂ O ₂)	RAW (2020) proef 36	B
Organic matter by calcination (TGA)	XP P 94 047	
pH	ISO 10390	
	Afl. PM - Hfdst. 01 (01.07)	B
	RAW (2020) proef 27	
Salt content per liter of soil moisture	RAW (2020) proef 38	B
Sulfate content (IC)	EN 196-2	

Geotechnical tests

Measurement of swelling pressure	BS 1377-5	
Consolidated drained triaxial test	BS 1377-8	
	EN ISO 17892-9	
	NEN 5117	
Consolidated undrained triaxial test	BS 1377-8	
	EN ISO 17892-9	
	NEN 5117	
Unconsolidated undrained triaxial test	BS 1377-8	
	EN ISO 17892-8	
Unconfined compression test	EN ISO 17892-7	
(pocket) Vane shear test	Geos	
Vane shear test	ASTM D4648	
	BS 1377-7	

Petrographical tests

Geological description of soil	Geos	
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Physical tests

Atterberg limits	RAW (2020) proef 14	B	
Classification of soil	NEN 5104		
	NF P 11-300		
	GTR		
	SB 250 (3.1) Hfdst. III § 3		
	SB 260 (1.0) Hfdst. XXII § 4.1.1.2.F		
Particle density	EN ISO 17892-3	L	
Density	EN ISO 17892-2 § 5.1		
	NEN 5110 & 5112		
	NF P 94-053		
Designation of soil	RAW (2020) Hfdst. 22 § 06		
Electrical conductivity	EN 13038		
Erosion resistance	RAW (2020) Hfdst. 22 § 06.07		
Particle size distribution - Hydrometer	EN ISO 17892-4 § 5.3	B	L
	NF P 94-057		L
	RAW (2020) proef 1	B	
Permeability coefficient	Geos		
Permeability by Eykelkamp (based ISO/TS 17892-11)	Geos		
Permeability by "Constant Head"	NEN 5123		
Permeability by falling head (based on ISO/TS 17892-11)	Geos		
Particle size distribution particles <0,020 mm	RAW (2020) proef 12		
Particle size distribution particles <0,063 mm	RAW (2020) proef 2	B	
Particle size distribution by laser diffraction	Geos		
Particle size distribution	EN ISO 17892-4 § 5.2	B	L
	NF P 94 056		
Assessment of soil for attack on concrete	NBN EN 206-1		
Texture of soil	RAW (2020) proef 29		
Soil texture	SB 250 (3.1) Hfdst. III § 4.2		
Water content	EN ISO 17892-1	L	
	NF P 94-050		
	SB 260 (1.0) Hfdst. XXII § 4.2		



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Proctor tests

Binder dosing curve	Geos		
Binder study	Geos		
California bearing ratio (CBR)	EN 13286-47	B	L
	NF P 94 078		L
Determination of compressive strength	RAW (2020) proef 18	B	
	EN 13286-41	B	L
Immediate bearing index (IBI)	EN 13286-47	B	L
1-point standard Proctor compaction	EN 13286-2	B	L
1-point modified Proctor compaction	EN 13286-2	B	L
5-point standard Proctor compaction	EN 13286-2	B	L
5-point modified Proctor compaction	EN 13286-2	B	L
Resistance to immersion	CME 52.23		
Determination of tensile strength	EN 13286-42	B	L
Accelerated swelling test	EN 13286-49		
Test for determining the treatment ability of a soil	NF P 94-100		
Workability period	EN 13286-45	B	



ASPHALT

Mix design

Laboratory mixing	EN 12697-35	B	
Specimen preparation by gyratory compactor	EN 12697-31	B	
	CME 54.09	B	
Specimen preparation by roller compactor	EN 12697-33 §7.1	B	L
Wheel tracking (large size wheel-tracker)	EN 12697-22 §8.1	B	L
Wheel tracking (small size wheel tracker)	EN 12697-22 §8.3		
Wheel tracking (starting from cores of 400 cm ²)	CME 54.13	B	
Wheel tracking (starting from laboratory bituminous mixtures)	CME 54.18	B	
Stiffness	EN 12697-26 (Methode A)		L
Fatigue test	EN 12697-24 (Methode A)		L

Physical tests

Sampling of bituminous mixtures	CME 54.28	B	
Coring of asphalt specimens	Geos		
Water content	EN 12697-14		
Compactibility of hot mix asphalt	EN 12697-10		
Specimen preparation by impact compactor	EN 12697-30	B	
Dimensions of a bituminous specimen	EN 12697-29	B	L
Thickness of a bituminous pavement	EN 12697-36 §6.1	B	L
Stratigraphy and presence of PAH of a bituminous pavement	SB 250 (4.1) Hfdst. VI § 2	B	
	CME 54.42		
Bulk density (procedure D)	EN 12697-6	B	L
	RAW (2020) proef 67	B	
Bulk density (procedure A)	EN 12697-6	B	L
	RAW (2020) proef 67	B	
Bulk density (procedure B)	EN 12697-6	B	L
	RAW (2020) proef 67	B	
Maximum density	EN 12697-5	B	L
	RAW (2020) proef 68	B	
Relative density	SB 250 (2.2) Hfdst. XIV §4.2	B	
	CME 54.08	B	



ASPHALT

12	GEOS laboratories	Void characteristics	EN 12697-8	B	L
			RAW (2020) proef 69	B	
			SB 250 (4.1) Hfdst. XIV § 4.3	B	
			CME 54.09		
		Water sensitivity of bituminous specimens (ITSR, method A)	EN 12697-12	B	L
			CME 54.40	B	
		Indirect tensile strength (dry, wet)	EN 12697-23	B	L
		Degree of compaction	RAW (2020) proef 66	B	
			CME 54.08		
		Bucket maniability	Geos		
		Preparation of samples for determination of binder content, water content and particle size distribution	EN 12697-28		L
		Adhesive strength	EN 12697-48		
		Binder drainage	EN 12697-18 §5	B	
		Indentation using plate specimens	EN 12697-21		
		Indentation	EN 12697-20	B	L
		Resistance to de-icing fluids	EN 12697-41		
		Resistance to fuel	EN 12697-43		
		Shrinkage of asphalt at constant temperature	Geos		
		Extraction of binder (Asphalt analyser)	EN 12697-1 Annex B.2.1	B	L
		Extraction of binder (Soxhlet)	EN 12697-1 Annex B.1.3	B	L
		Soluble binder content (Asphalt analyser)	EN 12697-1 Annex B.2.1	B	L
			TP Asphalt-StB Teil 1	B	
		Soluble binder content (Soxhlet)	EN 12697-1 Annex B.1.3	B	L
			RAW (2020) proef 65.1	B	
		Particle size distribution	EN 12697-2	B	L
		Bitumen recovery: rotary evaporator	EN 12697-3	B	L

Recyclability

		Stratigraphy of a bituminous pavement	CROW Publicatie 210		
			RAW (2020) proef 77.1	B	
			SB 250 (3.1) Hfdst. VI §2		
		Stratigraphy and presence of PAH of a bituminous pavement	CROW Publicatie 210		
			(RAW Proef 77.1 & RAW Proef 77.2) (2020)	B	
		Thickness of a bituminous pavement	RAW (2020) proef 64	B	
		(semi-quantitative) Presence of tar in asphalt by IR	SB 250 (3.1) Hfdst. XIV §3.7.2.3	B	



ASFALT

Presence of PAH by DLC	CROW Publicatie 210 (RAW Proef 77.3)(2020)	B
PAH-content by HPLC (10 components, OVAM)(based on NEN 6977+C1, NEN 7331/A1 §9.6)	Geos	B
PAH-content by HPLC (10 components, VROM)(based on NEN 6977+C1, NEN 7331/A1 §9.6)	Geos	B
PAH-content by HPLC (16 components, EPA)(based on NEN 6977+C1, NEN 7331/A1 §9.6)	Geos	B

Cold asphalt

Particle size distribution	EN 12697-2	B	L
	PTV 861 - version 2.0 §4.3 (2017)	B	
Soluble binder content (Asphalt analyser)	EN 12697-1 Annex B.2.1	B	L
	PTV 861 - version 2.0 §4.4 (2017)	B	
Void characteristics	EN 12697-8	B	L
Hardening ability	PTV 861 - version 2.0 §4.5 (2017)		
Ability to compact	PTV 861 - version 2.0 §4.10 (2017)	B	
Stability	PTV 861 - version 2.0 §4.6 (2017)		
Resistance to stripping	PTV 861 - version 2.0 §4.7 (2017)		
Indirect tensile strength	PTV 861 - version 2.0 §4.9 (2017)	B	
Resistance to rutting	PTV 861 - version 2.0 §4.8 (2017)	B	



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BITUMEN

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GEOS laboratories

Preparation of test samples	EN 12594		L
Penetration (25°C-100g-5s)	EN 1426	B	L
	AASHTO T 49	B	A
	ASTM D5	B	A
	IRAM 6576		
	PTV 866 - version 1.0 §4.3 (2020)	B	
	GOST 11501-78		
Penetration (15°C-100g-5s)	EN 1426	B	L
Penetration 5 temperatures (IP-5T)	FD T 66-064-2015		
Softening point (R&B)	AASHTO T 53	B	A
	ASTM D36	B	A
	EN 1427	B	L
	IRAM 6841		
	PTV 866 - version 1.0 §4.4 (2020)	B	
Penetration index	EN 12591 Annex A	B	
	IRAM 6835 5.1		
Fraass breaking point	EN 12593	B	L
Dynamic viscosity	AASHTO T 202		A
	AS 2341.2		
	ASTM D2171	B	A
	EN 12596	B	L
Kinematic viscosity	EN 12595	B	L
	AASHTO T 201		A
	ASTM D2170	B	A
Solubility	AASHTO T 44	B	A
	ASTM D2042	B	A
	EN 12592	B	L
	IRAM 6835 5.2		
Flash point - COC	AASHTO T 48	B	A
	ASTM D92	B	A
	EN ISO 2592	B	
	IRAM IAP A65-55		
Change of mass	AASHTO T 240	B	A
	ASTM D2872	B	A
	EN 12607-1	B	L
	IRAM 6839		
Dynamic Shear Rheometer (DSR)	AASHTO T 315	B	A
	ASTM D7175	B	A



	AL DSR Prüfung (BTSV)		L
	EN 14770	B	L
	AL DSR Prüfung (konstante Sherrate)		L
DSR: Flow curve at a range of temperatures	EN 14770	B	L
Temperature sweep (DSR)	AL DSR-Prüfung (T-Sweep)		
	TL Bitumen - StB § 5.4 - EN 14770	B	
	EN 14770	B	L
Adhesivity by water immersion test aggregate method	EN 15626		
Ash content	BS 2000-223	B	
	DIN 52005	B	
	EN 12697-47	B	
	ASTM D3174		
	ASTM D3180		
Bending Beam Rheometer	AASHTO T313	B	A
	AL BBR-Prüfung		
	ASTM D6648	B	A
	EN 14771	B	L
Element analysis (ICP-AES)	Geos		
Blending PMB	Geos		
Relative density	AASHTO T 228	B	A
	ASTM D70	B	A
	EN 15326	B	L
	EN ISO 3838		
	EN 1097-7	B	L
Density @ 15°C	ASTM D70	B	A
	ASTM D4052		
	EN 15326	B	L
	EN ISO 3838		L
	EN ISO 12185		
	ASTM D70	B	A
Density @ 25°C & 15°C	ASTM D70	B	A
	EN 15326	B	L
	ASTM D70	B	A
	EN ISO 3838		L
	ASTM D70	B	A
Polymer dispersion	EN 13632	B	L
VOC	Geos		
	EN ISO 3405		



BITUMEN

Ductility	ASTM D113	B	A
	DIN 52013		
	NBN T 54-208 (1971)	B	
	Afl. PM - Hfdst. 8 (08.36)	B	
Durability index	IRAM 6835 5.3		
Durability	NZTA T13		L
Elastic recovery	AASHTO T301	A	
	ASTM D7175	A	
	EN 13398	B	L
Equiviscous temperature by DSR	prEN 15324		
Equiviscous temperature	NEN 3945	B	
Fatigue test	RILEM TC 182 ATB		
Force ductility	AASHTO T 300		
	EN 13589 - EN 13703	B	L
H ₂ S	IP 570		
H ₂ S in headspace of bitumen by Draeger tubes	Geos		
Content of asphaltenes	DIN 51595	B	
	BS 2000-IP 143	B	
Estimating fatigue resistance of asphalt binders using the Linear Amplitude Sweep	AASHTO TP 101		
Loss in mass after heating	ASTM D6	B	
	EN 13303	B	L
Loss on ignition	Geos		
TTS Mastercurve	EN 14770	B	L
MSCR	AASHTO T 350	B	A
	ASTM D7405	A	
	AL MSCR	B	
Polymer content	Geos		
Na (ICP-AES)	Geos		
Presence of PAH by PAH-marker	CROW Publicatie 210 § 4.2 (RAW Proef 77.2)(2015)	B	
PAH-content by HPLC (16 components, EPA) (based on NEN 6977+C1, NEN 7331/A1 §9.6)	Geos	B	
PAH-content (16 components, EPA)	NEN 7331/A1 § 9.6		
Pressure Ageing Vessel (PAV)	AASHTO R28	B	A
	ASTM D6521	B	A
	EN 14769	B	L
Pendulum test	EN 13588	B	L
Determination Performance Binder Grade and Continuous Performance Grade	AASHTO M320		



BITUMEN

Plasticity index	EN 14023	B	L
Polymer content	Geos		
	LPC n° 71		
IR fingerprint	Geos		
Polymer type	Geos		
Flash point - PMCC	ASTM D93	B	
	EN ISO 2719	B	L
Perceptible properties	EN 1425		
Total sulfur	ASTM D2622		
Salts in bitumen	Geos		
Salt content	CEN TC336 WG2		
SARA analysis	ASTM D4124		
	IP 469		
Spot test	AASHTO T 102		
Spot test (Ensayo de la mancha)	IRAM 6594		
Staining tendency	EN 13301	B	L
Storage stability	ASTM D7173		
	ASTM D5976		
	EN 13399	B	
Susceptibility index	Geos		
Change of mass	AASHTO T 179		A
	ASTM D1754	B	A
	EN 12607-2	B	L
	EN 12607-3		L
Fuming loss	Geos		
Tensile properties	EN 13587	B	
Chromaticity co-ordinates and luminance factor	EN 1871 (Annex A)		
Verifying of capillary	Verification of capillary viscometers B		
Dynamic viscosity	ASTM D4402	B	A
	EN 13302	B	L
Dynamic viscosity (Temperature sweep)	EN 13302	B	L
Viscosity - Cone and plate	EN 13702	B	L
Dynamic viscosity @ 60°C	ASTM D4402	B	A
Visual characteristics	Geos		
Paraffin by distillation	EN 12606-1	B	L
Paraffin by extraction	EN 12606-2	B	L
Zero Shear Viscosity	CEN/TS 15325		
Determination of Delta Tc	PTV 854 §4.3	B	

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Emulsions

Water content	EN 16849		L
Breaking value	EN 13075-1	B	L
Cement mixing of emulsified asphalt	ASTM D6935		
Distillation characteristics	EN 13358		
Elastic recovery	EN 13398	B	L
Recovery (evaporation)	EN 13074-1	B	L
Stabilisation (recovery)	EN 13074-2	B	L
Efflux time	EN 12846-1	B	L
	NFT T 66-005		
Penetration (25°C-100g-5s)	EN 1426	B	L
pH	EN 12850	B	L
Particle polarity	EN 1430	B	L
Softening point (R&B)	EN 1427	B	L
Residual binder and oil distillate (outs.)	EN 1431		
Determination of settling tendency of bituminous emulsions	EN 12847		
Residue on sieving (0,160 mm)	EN 1429	B	L
Residue on sieving (0,500 mm)	EN 1429	B	L
Storage stability	EN 1429	B	L
Dynamic viscosity	EN 13302	B	L
Water content	EN 1428	B	L
	EN 16849	B	
Water immersion test	EN 13614		

Joint sealants

Compatibility	EN 13880-9		
Cone penetration (25°C)	EN 13880-2	B	
Density at 25°C	EN 13880-1	B	
Flow resistance	EN 13880-5	B	
Change in weight	EN 13880-8		
Penetration (25°C-100g-5s)	EN 1426	B	L
Pen & recovery	EN 13880-3	B	
Softening point (R&B)	EN 1427	B	L
Heat resistance	EN 13880-4	B	
Adhesion and cohesion	EN 13880-10		
Discontinuous extension	EN 13880-13		



CERAMICS

Abrasion resistance	EN 1344 - Annex E	B
	EN ISO 10545-6	B
Capillary water absorption	EN 772-11	B
Cold water absorption	EN 772-21	B
Determination of uniaxial compressive strength	EN 14617-15	
	EN 772-1	B
Gross dry density	EN 772-13	B
Net dry density	EN 772-13	B
Dimensions of clay pavers	EN 1344 - Annex B	B
Dimensions	EN 772-16 §7.1	B
Efflorescence	NBN B 24-209	B
Flatness of masonry units	EN 772-20	
Determination of flexural strength	EN 14617-2	
	EN 1344 - Annex D	B
	EN 15037-3+A1	
Freeze/thaw resistance	EN ISO 10545-4	B
	NBN B 27-009 (1996)	B
	EN 772-22 (2019)	B
	EN 1344 - Annex C	B
Frost resistance - water absorption by capillarity	NBN B 23-101 (2020)	
	NBN B 27-010 (1983)	B
Plane parallelism of the bed faces	EN 772-16 §7.4	
Shells and webs	EN 772-16 §7.2 & §7.5	B
Slip resistance	CEN TS 16165	B
Active soluble salts content (ICP-AES)	EN 772-5 §9.3	B
Net volume and percentage of voids	EN 772-3	B
Moisture movement	EN 772-14	B



CONCRETE

Chemical tests

Alkali content of concrete (ICP-AES)	EN 196-2	B
Cement content	GrandDuBé	
	NBN B 15-250	B
Chloride content by potentiometric titration	BSW n° 96-01	B
	EN 14629	
	NBN B 15-250	B
	GrandDuBé	
Water-soluble chloride salts	EN 1015-17	B
Chloride (total)	GrandDuBé	
CO ₂ (TGA)	NBN B 15-250	B
Insoluble residue on mortar (HCl-test)	Geos	
	GrandDuBé	
Insoluble residue	NBN B 15-250 §8	B
Loss on ignition	NBN B 15-250 §7	B
	NBN B 15-250	B
Nitrate content (IC)	Geos	
Sulfate content (IC)	NBN B 15-250	B
Sulfate content (gravimetric)	NBN B 15-250	B

Durability tests

Reactivity of a concrete formula for alkali-aggregate reactivity (AAR)	NF P 18-454	B
Acid resistance of concrete	Geos	
Air void characteristics	ASTM C 457	B
	EN 480-11	B L
Accelerated test on concrete	NBN B 15-001	
Resistance to carbonation	Geos	
	EN 13295	
Carbonation depth	CUR-aanbeveling 48 (2010)	
	EN 14630	B
Chemical resistance of concrete	EN 1825-1 §8.2.1	
	EN 858-1 §8.1.4	
Resistance to seawater	CUR-aanbeveling 48 § 7.5 (2010)	
	NBN B 15-100 § 6.4.2.5	
Resistance to sulfates	CUR-aanbeveling 48 § 7.5 (2010)	
	NBN B 15-100 § 6.4.2.6	

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Resistance to freezing - Internal damage	NBN B15-100		
Frost resistance (freeze/thaw in water)	NF P 18-424		
Resistance to freezing w. de-icing salts	NBN B15-100		
Freeze/thaw resistance with de-icing salt	EN 1433 Annex C	B	
	CEN/TS 12390-9 §5	B	
	RNR 06	B	
	XP P 18-420		
	ISO/DIS 4846-2		
	SB 250 (3.1) Hfdst. XIV §4.8		
Determination of frost resistance	NBN B 15-231 (1987)	B	
Gas permeability of hardened concrete	XP P 18-463	B	L
Water impermeability	EN 491 §5.7	B	
Depth of penetration of water under pressure	EN 12390-8	B	
	ISO 7031		
RCM (Rapid Chlorid Migration)	XP P 18-462	B	L
	NT Build 492	B	
Electrical resistivity of concrete	Geos		
Accelerated test on mortar by concrete prism test	LPC n° 66		

Fresh tests

Preparation and conservation of samples for compressive strength test	EN 12390-2		L
Air content of fresh mortar	EN 1015-7	B	
	EN 12350-7	B	L
	EN 413-2 §7	B	
	EN 1015-7	B	
Density	EN 12350-6	B	L
Flow value	EN 12350-5	B	L
Slump-test	EN 12350-2	B	L
Vébé test	EN 12350-3		
Water content	TRA 550 Deel P, Annex A § 2.2		

Petrographic tests

Petrographic examination of mortar	Geos		
Petrographic examination of concrete	Geos		



Physical tests

Tensile test	PTV 8450-2 - version 2.0 (2016)	B	
	SB 250 (3.1) Hfdst. III § 43.3.5.4		
	EN 1542		
	EN 1348		
	NBN B 14-210 (1969)		
Capillary water absorption	Geos		
	NBN B 15-217 (1984)	B	
Compressive strength	EN 12390-3	B	L
	NBN B 15-220 (1990)	B	
	PTV 100 (2002)	B	
	RAW (2020) proef 32		
	PTV 21-101 (2010)		
Compressive strength on cores in situ taken	CME 52.05	B	
Layer thickness of cores and thickness of reinforcements	CME 53.17	B	
	EN 13863-3	B	
Layer thickness of foundation and road structure	CME 52.04	B	
Determination of compression behaviour	EN 826		
Coring of concrete specimens	EN 12504-1		
Concrete cover	EN 1917 § 6.3.2		
Creep	NBN B 15-228 (1976)		
Density of hardened concrete by dimensions	EN 12390-7	B	
	NBN B 15-218 (1986)	B	
Density of hardened concrete by water displacement	EN 12390-7	B	
Density of hardened mortar by dimensions	EN 1015-10	B	
Porosity accessible to water and density	NF P 18-459	B	L
	GrandDuBé		
Mass per unit area	EN 845-2 § 5.2.2		
Dynamic E-module of concrete by speed of sound	NBN B 15-229 (1976)		
Static module of elasticity	EN 12390-13		
Flexural tensile strength residual of metallic fibre concrete	EN 14651		
Fibre content in fresh or hardened concrete	EN 14721+A1 (2007)	B	
Flexural strength (one-point loading)	EN 12390-5 Annex A	B	
Flexural strength (two-point loading)	EN 12390-5	B	
Shrinkage and expansion	NBN B 15-216 (1974)		
Slip resistance	EN 13036-4	B	
Tensile splitting strength of test specimens	EN 12390-6	B	

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Strength

(based on NBN EN 1338 Annex F (2003))	Geos	
Loading test on gully tops and manhole tops	EN 124-1	
Loading test on drainage channel	EN 1433 §9.1	B
Crushing strength of gully tops and manhole tops	BRL 9203 § 4.2.13	
Vertical strength of reducing units and capping units	PTV 114 §7.5.2 (2012)	
Shear strength of hollow concrete core slabs	EN 1168 Annex J	
Loading test on gully tops and manhole tops	NEN 7067 § 5.5.2	
Crushing strength of pre-cast drainage boxes	PTV 105 (2002)	
Crushing strength of concrete pipes	EN 1916 Annex C	B
Crushing strength of chamber and shaft units	EN 1917 Annex A	B
Dimensions of a concrete core	Afl. PM - Hfdst. 53 (53.01)	B
Coating thickness	Geos	
Water absorption by immersion	NBN B 15-215 (2018)	B
	EN 13369 - Annex F	B
	EN 1433 §9.2	B
	EN 1916 Annex F	B
	EN 1917 Annex D	
	CME 53.13	B
	PTV 100 (2002)	
Water permeability	PTV 126 § 8.3 (2017)	B

Concrete blocks

Density of concrete blocs	CERIB Fiche 391 (2007)	
Permeability - permeable hybrid products	PTV 823 D §4.2	
Water absorption on sulphur concrete products	PTV 126 §8.3.2	
Capillary water absorption sample	EN 772-11	B
Compressive strength sample	EN 772-1	B
Freeze/thaw resistance	EN 772-22 (2019)	B
Moisture movement	EN 772-14	B
Drying shrinkage	EN 680	B

Concrete Kerb Units

Abrasion resistance (Capon)	EN 1340 - Annex G	B
Determination of flexural strength	EN 1340 - Annex F	B
Freeze/thaw resistance with de-icing salt	EN 1340 - Annex D	B



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Slip resistance	EN 1340 - Annex I	B
Water absorption by immersion	EN 1340 - Annex E	B

Concrete Paving Block

Abrasion resistance (Capon)	EN 1338 - Annex G	B
Dimensions of concrete paving blocks	EN 1338 - Annex C	
Freeze/thaw resistance with de-icing salt	EN 1338 - Annex D	B
Penetration value of packing pieces	EN 1338 - Annex F	
Slip resistance	EN 1338 - Annex I	B
Strength	EN 1338 - Annex F	B
Water absorption by immersion	EN 1338 - Annex E	B

Concrete Paving Flag

Abrasion resistance (Capon)	EN 1339 - Annex G	B
Chloride ion ingress (products and system for protection and repair of concrete structures)	EN 13396	
Determination of flexural strength	EN 1339 - Annex F	B
Freeze/thaw resistance with de-icing salt	EN 1339 - Annex D	B
Slip resistance	EN 1339 - Annex I	B
Water absorption by immersion	EN 1339 - Annex E	B

Mixing Water

Alkalinity	EN 1008	
Assessment of mixing water	EN 1008	
Chlorides (IC)	EN 196-2	B
Density @ 20°C	EN 1008	B
Dissolved matter	EN 1008	
Alkali (ICP-AES)	EN 196-2	B
Nitrates	EN 196-2	B
P ₂ O ₅ - Pb - Zn	EN 196-2	B
pH	ISO 4316	
Preliminary assessment	EN 1008	
Sugars	Geos	
Sulphates (IC)	EN 196-2	B
Magnesium content	Geos	B



Concrete

SEM analysis	Geos
Quantitative XRD analysis	Geos
Qualitative XRD analysis	Geos

Admixture

Alkali content (ICP-AES)	EN 480-12	B
Capillary water absorption	EN 480-5	B
Water-soluble chlorides by titration	EN 480-10	B
Density at 20°C	EN 480-7	B
	ISO 758	B
Conventional dry material content	EN 480-8	B
Infrared analysis	EN 480-6	B
pH	EN 480-9	B
	ISO 4316	B
Effect on setting time (TRA 500 v6.0 01/01/2016)	EN 480-2	B
Visual characteristics (homogeneity and colour)	Geos	



HYDRAULIC BINDERS

Cement - Fly ash

Alkali content (ICP-AES)	LPC n° 48		
	Geos		
Influence on soundness (Châtelier)	EN 196-3 §7	B	
Chloride (potentiometric)	EN 196-2	B	
	EN 196-2 §4.5.16		
	EN ISO 1158		
CO ₂ (TGA)	EN 196-2	B	
	NF P18-805		
Compressive strength	EN 196-1	B	
Content of cement constituents	CEN/TR 196-4 §6.2		
Water-soluble chromium (VI)	EN 196-10	B	
Particle density	EN 1097-7	B	L
	EN 196-6 §4	B	L
Fineness by sieving (90 µm)	EN 196-6 §3	B	L
Fineness by air permeability	EN 196-6 §4	B	L
Determination of flexural strength	EN 196-1	B	
Free CaO	EN 451-1	B	
Water retention	EN 413-2 §6	B	
Air content of fresh mortar	EN 413-2 §7	B	
Water solubility	Geos		
Heat of hydration	EN 196-9	B	
Chemical composition (ICP-AES)	EN 196-2	B	
Impure SiO ₂	EN 196-2 §4.5.5		
Loss on ignition (TGA)	EN 196-2	B	
	NF P18-805		
Reactive Al ₂ O ₃	EN 197-1		
Reactive CaO	EN 197-1	B	
Reactive SiO ₂	EN 197-1	B	
Sulfide	EN 196-2 §4.4.5	B	
Determination of shrinkage and swelling	NF P 15-433	B	
Sulfates (gravimetric)	EN 196-2 §4.4.2	B	
Sulfates (IC)	EN 196-2	B	
Soluble phosphate content	EN 450-1 Annex C	B	
Total organic carbon	EN 13639		
Total carbon	ISO 10694 - ISO 12902	B	
Standard consistence	EN 196-3 §5	B	

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HYDRAULIC BINDERS

Final setting time (Vicat)	EN 196-3 §6.3	B
Initial setting time (Vicat)	EN 196-3 §6.2	B
Chemical composition (XRF)	EN 196-2 §5	B
Insoluble residue	EN 196-2 §4.4.3	B
Particle size distribution	ISO 13320	

Specific fly ash tests

Compressive strength	EN 196-1	B
Determination of flexural strength	EN 196-1	B
Activity index	EN 450-1 §5.3.2	B
False set (Tusschenbroeck test)	NF P18-363	
Fineness by wet sieving	EN 451-2	B
Water requirement of fly ash	EN 450-1 Annex B	
Chemical composition (ICP-AES)	EN 196-2	B
Influence on the initial setting time	EN 196-3 §6	B
Chemical composition (XRF)	EN 196-2 §5	B
Soluble phosphate content	EN 450-1 Annex C	B
Particle size distribution	ISO 13320	

Gypsum

Anhydrite content (calculation)	Geos	
Chloride (potentiometric)	VGB M 701 § 8.8	
HCl insolubles	VGB M 701 § 8.11	
Chemical composition (ICP-AES)	VGB M 701 § 8.7	
pH	VGB M 701 § 4	
Sulfates (IC)	VGB M 701 § 2.3	
CaSO ₃ · ½ H ₂ O	VGB M 701 § 8.9	
Total organic carbon (based on ISO 10694/12902)	VGB M 701 § 8.10	
Moisture, purity and CaCO ₃ content (TGA)	VGB M 701 § 3	

Lime

Free lime	PTV 847 Annex A (2019)	
	EN 1744-1 § 18.4	B
Ca(OH) ₂ content	EN 459-2 §6.9	
CaO content	EN 459-2 §6.9	
Free water in buiding lime	EN 459-2 §6.4	
Reactivity of lime	EN 459-2 §7.6	
Stability of lime	EN 459-2 §7.4.4	



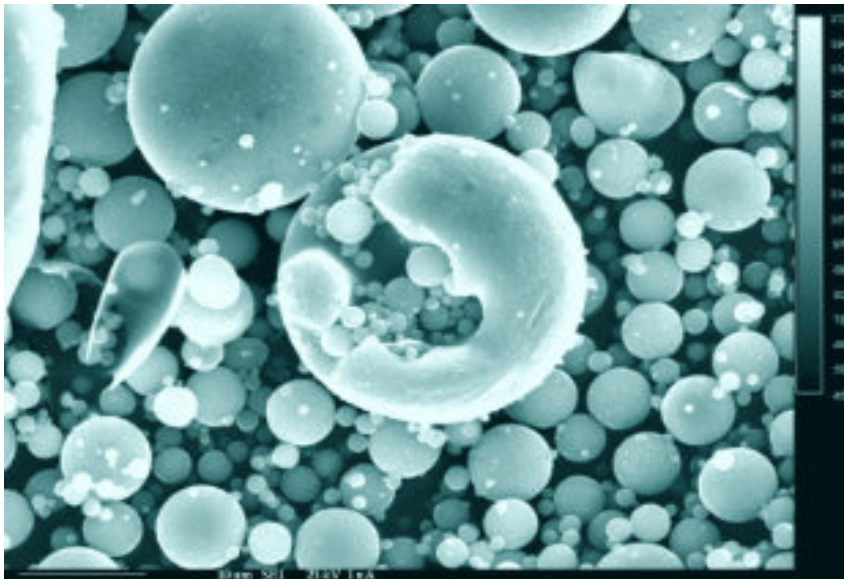
Final setting time (Vicat)	EN 459-2 §7.5.4
Initial setting time (Vicat)	EN 459-2 §7.5.4

Mortar

Abrasion resistance	EN 12808-2	
Determination of strength	EN 1015-11	B
Compressive and flexural strength	EN 12808-3	
Consistence of fresh mortar (plunger)	EN 1015-4	
Freeze-thaw resistance of mortar	EN 12808-3	
Determination of frost resistance (by flexural and compressive strength)	PTV 844 - version 1.0 (2019)	
Determination of shrinkage	EN 12808-4	
Determination of water absorption	EN 12808-5	

Slag

Compressive strength	EN 196-1	B
Activity index	EN 15167-1 §5.3.2.3	B
Determination of slag content	CEN/TR 196-4 §7.2.2	B
Moisture content	EN 15167-1 Annex A	
Chemical analysis	Geos	B
Glas content (XRD)	BRL 9325	



Fly ash: microscopic view



NATURAL STONE

Acid resistance of natural stone	Geos	
Resistance to ageing by SO ₂ action	EN 13919	B
Basic resistance of natural stone	Geos	
Abrasion resistance (Capon)	EN 14157 (method A)	B
Chemical analysis	PTV 819-5	B
Classification of natural stone	PTV 819-4	
Determination of uniaxial compressive strength	ASTM D7012	
	EN 1926	B
	NF P 94-420	
Continuity index	NF P 18-556	
Apparent density and open porosity	EN 1936	B
Breaking load at dowel hole (type IIa)	EN 13364	
Determination of flexural strength	EN 12372	B
Determination of frost resistance (identification)	EN 12371	B
Visual analysis of presence of limestone	Geos	
Petrographic examination of natural stone	EN 12407	B
Determination of porosity	NF P 94-410-3	
Slip resistance	EN 14231	B
Tensile splitting strength	ASTM D3967	
Ageing by thermal shock	EN 14066	B
Waterabsorption by capillarity	EN 1925	B
Waterabsorption at atmospheric pressure	EN 13755	B
Dimensions of natural stone products	EN 13373 §7.1 + 7.2 + 7.3	
Dynamic E-modulus of elasticity (resonance frequency)	EN 14146	
Infrared analysis	EN 14581	
Particle density and water absorption	EN 13383-2 §8	B
Point load test	ASTM D5731	
Resistance to freezing and thawing	EN 13383-2 §9	B
Sonnenbrand	EN 13383-2 §10	B



MISCELLANEOUS

Pigments

Total chlorine	EN 12878	
Watersoluble chloride (potentiometric)	ISO 787-13 § 7	
Loss on ignition (TGA)	EN 12878	
Water solubility	ISO 787-3	
Compressive strength (28 days)	EN 196-1	B
Influence on the setting time	EN 196-3 §6	B

Road Marking

Storage stability	EN 1871 (Annex G)	
Softening point (R&B) after heating	EN 1871 (Annex F)	
Indentation value after heating	EN 1871 (Annex J)	
Softening point (R&B)	EN 1871 (Annex F)	
Density	ISO 2811-2	B
Indentation value	EN 1871 (Annex J)	



ON SITE TESTS

Map with location of tests on construction site	Geos	
Sampling of a sample for subfoundation or foundation (aggregates)	CME 01.24	B
Coating thickness	SB 250 (3.1) Hfdst. III § 43.3.5.2	
Manual cone penetration test	Afl. PM - Hfdst. 50 (50.03)	
	CME 50.03	B
Pachometer (horizontal and vertical)	Geos	
Sclerometer	EN 13791	
Plate loading test according to Westergaard	SNV 670 319	B
	NF P 94-117-3	B
Plate loading test (200 cm²)	Afl. PM - Hfdst. 50 (50.01)	B
Plate loading test (750 cm²)	Afl. PM - Hfdst. 50 (50.01)	B
Dynamic plate load test	TP BF-StB Part B 8.3	B
Investigation and assessment of drain and sewer systems	EN 13508 (codification)	
	CCT Qualiroutes	
	BEFDSS-DP (Format d'échange)	B



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