

Annex to declaration of accreditation (scope of accreditation)  
 Normative document: EN ISO/IEC 17043:2010  
 Registration number: **R 017**

of **Heineken Supply Chain B.V.**  
**Quality Assurance Laboratories (QAL)**

This annex is valid from: **21-10-2021** to **01-06-2026**

Replaces annex dated: **12-04-2018**

**Location(s) where activities are performed under accreditation**

**Head Office**

Burgemeester Smeetsweg 1  
 2382 PH  
 Zoeterwoude  
 The Netherlands

Location	Abbreviation/ location code
<u>Head Office</u> Burgemeester Smeetsweg 1 2382 PH Zoeterwoude The Netherlands	Z

Nr. / HCS code	Material, product or device	Type of activity (parameter)	Concentration range / Measuring range	Frequency	Location
<b>Heineken Analytical Ring Analysis (HARA)</b>					
1	Canned beer	Original Extract	5 – 15 % (m/m)	1 per 2 months	Z
		Alcohol	2 - 8 % (V/V)		
		Apparent extract	0.5 – 3.0 % (m/m)		
		Colour	5 – 20 EBC		
		pH	4 – 5		
2		Apparent extract after final attenuation	0.3 – 3.0 % (m/m)	1 per 2 months	Z
3		Bitterness	10 – 30 BU	1 per 2 months	Z

This annex has been approved by the Board of the Dutch Accreditation Council, on its behalf,

J.A.W.M. de Haas

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4	Canned beer	pH	4 – 5	1 per 2 months	Z
5		Carbon dioxide Foreign gas	0.4 – 0.6 % (m/V) 0.2 – 4 mL/L	1 per 2 months	Z
6		Foam stability	200 – 300 s	1 per 2 months	Z
7		Sulphur dioxide	1 - 10 mg/L	1 per 2 months	Z
8		Turbidity	0.2 – 2 EBC	1 per 2 months	Z
9		Turbidity after 7days at 57°C	0.2 – 4 EBC	1 per 2 months	Z
10		Free amino nitrogen	20 – 200 mg/L	1 per 2 months	Z
11		Nitrogen	300 – 1000 mg/L	1 per 2 months	Z
12		Acetaldehyde Dimethylsulphide Ethylacetate Iso-Amylacetate Total higher alcohols	1 – 10 mg/L 10 – 100 µg/L 10 – 40 mg/L 1 - 7 mg/L 40 – 200 mg/L	1 per 2 months	Z
13		Diacetyl 2,3-Pentanedione	5 – 50 µg/L 5 – 50 µg/L	1 per 2 months	Z
14		Vicinal diketones	20 – 100 µg/L	1 per 2 months	Z

**Heineken Microbiological Ring Analysis (HMRA)**

15	Freeze dried skimmed milk powder	Lactic acid bacteria	1500-80000 CFU/vial	1 per 2 months	Z
		Gram negative, catalase positive bacteria			
		Spore forming, aerobic bacteria			
		Gram positive, aerobic cocci			
		Brewing yeast			
		Non-brewing yeast			

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<b>Heineken Analytical Ring Analysis Malt (HARAM)</b>					
16	Malt	Moisture [EBC]	0 – 6 % (m/m)	1 per 2 months	Z
17		Protein on dry matter [EBC Kjeldahl]	8.5– 14 % (m/m)	1 per 2 months	Z
18		Protein on dry matter [EBC Dumas]	8.5 – 14% (m/m)	1 per 2 months	Z
19		Diastatic power on dry matter [EBC]	150 – 600WK	1 per 2 months	Z
20		Sievetest < 2.2 mm [EBC]	0.1 – 5% (m/m)	1 per 2 months	Z
21		Sievetest > 2.5 mm [EBC]	80 – 95% (m/m)	1 per 2 months	Z
22		Friability [EBC]	70 – 100% (m/m)	1 per 2 months	Z
23		Partly unmodified grains (PUG) [EBC]	0 – 5% (m/m)	1 per 2 months	Z
24		Glassy corns (WUG) [EBC]	0 – 7% (m/m)	1 per 2 months	Z
25		S-methylmethionine (DMSP) [Mebak, Band II 1996]	0 – 10 mg/kg	1 per 6 months	Z
26		Free Dimethyl sulphide (DMS) [Mebak, Band II 1996]	0 – 20 mg/kg	1 per 6 months	Z
27		Total Dimethyl sulphide (DMS) [Mebak, Band II 1996]	0 – 20 mg/kg	1 per 6 months	Z

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28	Malt	N-Nitroso-dimethylamine (NDMA) – Gas chromatography	0 – 10 µg/kg	1 per 6 months	Z
29	Wort	Extract EBC fine grinding on dry matter [EBC]	75 – 85 %(m/m)	1 per 2 months	Z
30		Fermentability of wort [EBC]	75 – 88 %	1 per 2 months	Z
31		Colour of wort – Visual [EBC]	2 – 6 EBC	1 per 2 months	Z
32		Colour of wort – Spectrophotometric [EBC]	2 – 6 EBC	1 per 2 months	Z
33		Colour of boiled wort – Spectrophotometric [EBC 4.19]	5 – 8 EBC	1 per 2 months	Z
34		pH of wort [EBC]	5 – 7	1 per 2 months	Z
35		Saccharification Time [EBC]	5 – 20 Min	1 per 2 months	Z
36		Viscosity at 20 °C of wort [EBC]	1.45 – 1.70 mPa.s	1 per 2 months	Z
37		Soluble protein on dry matter [EBC Kjeldahl]	3 – 6% (m/m)	1 per 2 months	Z
38		Soluble protein on dry matter [EBC Dumas]	3 – 6% (m/m)	1 per 2 months	Z
39		Beta-Glucan in wort [EBC]	100 – 300 mg/l	1 per 2 months	Z
40		Free amino nitrogen (FAN) in wort [EBC]	20 – 300 mg/l	1 per 2 months	Z