



Style:
HAZY PALE ALE - 19L/5GAL

Source:
Humalakoda Brewery Estonia

Fermented with:
LalBrew Pomona™

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Beer name and/or description: **Humala Häma**

IBU: | Color (SRM): | % ABV: 3.9

Hazy Pale Ale brewed with Amarillo, Enigma and Nelson Sauvin hops.

Water

Mash Water	Temp.	74	°C	165	°F
		11.2	L	3	gal
Sparge Water	Temp.	78	°C	172	°F
		17.5	L	4.6	gal

Malt

Malt/adjuncts	Weight		%
	Kg	Lbs	
Dingemans Pale Ale	2.0	4.4	50
Golden Naked Oats	1.0	2.2	25
Chateau Spelt Malt	0.4	0.9	10
Ireks Spitz Malt	0.2	0.5	5
Torrefied Wheat	0.2	0.5	5
Buckwheat Husks	0.2	0.5	5
Total	4	9	100

Mash & Sparge

	Temperature		Time (min)
	°C	°F	
Mash Step 1	67	153	60
Mash Step 2			
Mash Step 3			
Mash Step 4			

NOTES

Other ingredients	Quantity	Units (L, g, etc)	Addition Point
Lactic acid 80%	10	ml	mash water

Boil

Wort	SG	L	gal	pH
Pre-boil	1.036	24.5	6.5	
Post-boil	1.037	23.9	6.3	
Total Boil Time	60 minutes			

Hops

Hop Variety	%AA	Weight		Kettle addition Boil Time (min)	Dry hopping Fermentation day
		g	oz		
Enigma	16.0	50	1.8	0	
Amarillo	9.0	34	1.2	0	
Enigma	16.0	34	1.2		0
Amarillo	9.0	34	1.2		0
Enigma	16.0	34	1.2		5
Amarillo	9.0	34	1.2		5
Nelson Sauvin	12.0	168	5.9		13
Total	87	388	13.7		

Fermentation

Yeast Strain	LalBrew Pomona™			
Pitch Rate	0.88	g/L		g/gal
Temperature	19	°C	66	°F
	SG		Plato	
OG	1.037		9.2	
FG	1.008		2.0	
Attenuation	78.3	%		

Target water profile:

Sulfate (SO4) - 87ppm, Chloride (Cl) - 200ppm,
Calcium (Ca) - 76ppm, Magnesium (Mg) - 7.2ppm,
Sodium (Na) - 5.1ppm, Carbonate (CO3) - <6.0ppm,
Bicarbonate (HCO3) - 165ppm, pH 5.2

