

Cold IPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **100**
- SRM **3.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (75.8%)	80 %	4
Grain	Weyermann - Carapils	0.3 kg (4.5%)	78 %	4
Grain	Rice, Flaked	1.3 kg (19.7%)	70 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	45 g	60 min	15.5 %
Aroma (end of boil)	Citra	30 g	5 min	12 %
Whirlpool	Citra	70 g	15 min	12 %
Whirlpool	Amarillo	50 g	15 min	9.5 %
Dry Hop	Amarillo	50 g	3 day(s)	9.5 %
Dry Hop	Nelson Sauvín	100 g	3 day(s)	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager W 34/70	Lager	Slant	250 ml	Fermentis
WLP518 - Opshaug Kveik Ale	Ale	Liquid	50 ml	White Labs

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips Piwowarski	11 g	Mash	60 min
Water Agent	Epsom	3 g	Mash	60 min
Water Agent	NaCl	1 g	Mash	60 min
Water Agent	CaCl	2 g	Mash	60 min
Fining	whirfloock	4 g	Boil	10 min
Water Agent	Kwas mlekowy	2 g	Mash	5 min

Notes

- Kwas mlekowy do korekty pH zacieru (5.3) i korekty pH brzeczki nastawnej (5.1). Na koniec gotowania cała tabletka whirfloocku
 Profil wody (chmielowy): Ca-91.1/Mg-11.2/Na-13.6/Cl-51/SO4-195.2/HCO3-41
 Fermentacja W 34/70: Start w 9°C, 3 dni po rozpoczęciu fermentacji podnoszenie temperatury o 1°C dziennie, aż do 15°C. Przerwa diacetylowa około 7 dni w 15°C
 Fermentacja Opshaug: Zadanie drożdży w około 20°C, Feremnacja w temp pokojowej.
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