

Warmhole

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **69**
- SRM **4.5**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **12.5 %/h**
- Boil size **28.7 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	6 kg (78.9%)	82 %	4
Grain	Viking Wheat Malt	0.8 kg (10.5%)	83 %	5
Sugar	Corn Sugar (Dextrose)	0.8 kg (10.5%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	60 g	60 min	10.5 %
Boil	Amarillo	30 g	30 min	9.5 %
Boil	Apollo	25 g	1 min	17 %
Boil	Citra	25 g	1 min	12 %
Dry Hop	El Dorado	30 g	5 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	150 ml	Fermentis