

:kappa

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **18**
- SRM **4**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **66 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **26.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (50.8%)	80 %	5
Grain	Płatki owsiane	1.1 kg (18.6%)	85 %	3
Grain	Viking Pilsner malt	1 kg (16.9%)	82 %	4
Grain	płatki jaglane	0.4 kg (6.8%)	80 %	3
Grain	Jęczmień niesłodowany	0.4 kg (6.8%)	75 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Equinox	10 g	60 min	16.1 %
Aroma (end of boil)	Citra	10 g	5 min	12 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	5 min	15.8 %
Dry Hop	Equinox	35 g	7 day(s)	16.1 %
Dry Hop	Columbus/Tomahawk/Zeus	30 g	5 day(s)	15.5 %
Dry Hop	Summit	50 g	5 day(s)	18 %
Boil	Marynka	10 g	60 min	8.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM53 Voss kveik	Ale	Slant	100 ml	FM
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