

echo 'Hello World'

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **24**
- SRM **4.5**
- Style **Weizen/Weissbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **45 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Wheat Malt	2 kg (40%)	83 %	5
Grain	Viking Vienna Malt	2 kg (40%)	79 %	7
Grain	Viking Pale Ale malt	1 kg (20%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	15 g	60 min	6 %
Boil	Cascade	10 g	40 min	6 %
Boil	Simcoe	25 g	5 min	13.2 %
Boil	Owoce Jałowca	15 g	10 min	1 %
Boil	Skórka cytrynowa	20 g	10 min	1 %