

Brian

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **37**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **72 C**, Time **60 min**
- Temp **80 C**, Time **10 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **10 min** at **80C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (85.7%)	80 %	5
Grain	Weyermann - Carapils	0.5 kg (14.3%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	10 g	60 min	10.5 %
Boil	Columbus/Tomahawk/Zeus	20 g	10 min	15.5 %
Dry Hop	Columbus/Tomahawk/Zeus	30 g	7 day(s)	15.5 %
Dry Hop	Galaxy	30 g	3 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	12 g	Safale

Extras

Type	Name	Amount	Use for	Time
Herb	kawa ziarnista skruszona	200 g	Secondary	2 day(s)

Flavor	skórka pomarańczy	100 g	Boil	10 min
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