

american pale ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **40**
- SRM **4.3**
- Style **American Pale Ale**

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 **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (75.5%)	80 %	5
Grain	Viking Wheat Malt	1 kg (18.9%)	83 %	5
Grain	Bestmalz Carmel Pils	0.3 kg (5.7%)	75 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	20 g	40 min	6 %
Whirlpool	Citra	50 g	15 min	12 %
Whirlpool	Amarillo	50 g	15 min	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	---