

APA with Piter

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **29**
- SRM **4.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **74 C**, Time **1 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **74C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (87.7%)	80 %	5
Grain	Carahell	0.2 kg (3.5%)	77 %	26
Grain	Viking Wheat Malt	0.5 kg (8.8%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	20 g	60 min	8.5 %
Boil	Cascade	20 g	5 min	6 %
Dry Hop	Cascade	40 g	21 day(s)	6 %
Boil	Marynka	10 g	60 min	10 %