

APA

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **21**
- SRM **6.3**
- 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 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.5 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 (67.8%)	80 %	5
Grain	Weyermann - Carapils	0.3 kg (5.1%)	78 %	4
Grain	Caramunich® typ I	0.2 kg (3.4%)	73 %	80
Grain	Pilzniejszy	0.8 kg (13.6%)	81 %	4
Grain	Cookie Viking Malt	0.1 kg (1.7%)	72 %	45
Grain	Pszeniczny	0.4 kg (6.8%)	85 %	4
Grain	Abbey Malt Weyermann	0.1 kg (1.7%)	75 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	20 g	60 min	6 %
Aroma (end of boil)	Mosaic	20 g	10 min	10 %
Aroma (end of boil)	Hallertau Blanc	20 g	1 min	11 %
Whirlpool	Hallertau Blanc	30 g	1 min	11 %
Whirlpool	Mosaic	45 g	---	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	---