

APA 13 blg

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **32**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **20 min**

Mash step by step

- Heat up **21.4 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **77C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (46.2%)	80 %	5
Grain	Viking Pilsner malt	2 kg (30.8%)	82 %	4
Grain	Viking Munich Malt	0.5 kg (7.7%)	78 %	18
Grain	Viking Wheat Malt	0.5 kg (7.7%)	83 %	5
Grain	Viking Vienna Malt	0.5 kg (7.7%)	79 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus US	15 g	60 min	15.5 %
Boil	Chinook	15 g	20 min	9 %
Aroma (end of boil)	Cascade PL	20 g	3 min	5.2 %
Dry Hop	Cascade PL	20 g	3 day(s)	5.2 %
Dry Hop	Chinook	20 g	3 day(s)	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	20 g	LA FARGE

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	10 g	Boil	15 min