

APA

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **29**
- SRM **3.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **44 liter(s)**
- Trub loss **5 %**
- Size with trub loss **46.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **55.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26.4 liter(s)**
- Total mash volume **35.2 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**
- Temp **100 C**, Time **60 min**

Mash step by step

- Heat up **26.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Keep mash **60 min** at **100C**
- Sparge using **38.1 liter(s)** of **76C** water or to achieve **55.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	6.4 kg (72.7%)	80.5 %	2
Grain	Briess - 2 Row Carapils Malt	0.4 kg (4.5%)	75 %	3
Grain	Briess - Wheat Malt, White	1 kg (11.4%)	85 %	5
Grain	Caramel/Crystal Malt - 20L	0.5 kg (5.7%)	75 %	39
Grain	Briess - 2 Row Carapils Malt	0.5 kg (5.7%)	75 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	13 %
Boil	Cascade	40 g	10 min	6 %
Whirlpool	Cascade	30 g	20 min	6 %
Dry Hop	Cascade	30 g	4 day(s)	6 %

30 lemon drop, 30 amarillo kveik
40 Iremon drop 30 centennial us 05

Dry Hop	Mosaic	30 g	4 day(s)	10 %
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Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Liquid	100 ml	FM