

APA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **31**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **30 min**
- Evaporation rate **12 %/h**
- Boil size **26.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **27.5 liter(s)**

Steps

- Temp **68 C**, Time **80 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.98 kg (43.2%)	80 %	5
Grain	Pilzneński	1.4 kg (30.6%)	81 %	4
Grain	Pszeniczny	1 kg (21.8%)	85 %	4
Grain	Cara Blonde - Castle Malting	0.2 kg (4.4%)	78 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	30 min	12.7 %
Boil	Amarillo	27 g	10 min	8.5 %
Boil	Cascade	27 g	10 min	6 %
Dry Hop	Amarillo	50 g	3 day(s)	8.5 %
Dry Hop	Galaxy	50 g	3 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew Verdant IPA	Ale	Slant	140 ml	Lallemand