

APA2020

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.7 liter(s) / kg**
- Mash size **32 liter(s)**
- Total mash volume **38.8 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **32 liter(s)** of strike water to **66.5C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **25 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **33.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Pale Ale	6 kg (88.2%)	79 %	6
Grain	Pszeniczny	0.5 kg (7.4%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.3 kg (4.4%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Dry Hop	Cascade	50 g	2 day(s)	6 %
Dry Hop	Simcoe	60 g	2 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
OSLO	Ale	Slant	200 ml	---