

APA KOP

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **118**
- SRM **13.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **22.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.5 kg (37.3%)	85 %	7
Grain	Weyermann - Carapils	1.2 kg (17.9%)	78 %	4
Grain	Weyermann - Carared	1.5 kg (22.4%)	75 %	45
Grain	Weyermann - Melanoiden Malt	1.5 kg (22.4%)	81 %	53

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %
Boil	Cascade PL	30 g	40 min	5.2 %
Boil	Sorachi Ace	30 g	20 min	10 %
Aroma (end of boil)	Falconers flight	30 g	15 min	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis