

## APA #5

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **33**
- SRM **6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (81.8%)	80 %	5
Grain	Monachijski	0.5 kg (9.1%)	80 %	16
Grain	Strzegom Bursztynowy	0.5 kg (9.1%)	70 %	49

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	40 g	60 min	8.5 %
Aroma (end of boil)	El Dorado	90 g	0 min	15 %

### Yeasts

Name	Type	Form	Amount	Laboratory
koelsch	Ale	Slant	200 ml	Lallemand