

## Sesion apa

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- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **43**
- SRM **3.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (83.3%)	80 %	5
Grain	Pszeniczny	0.5 kg (16.7%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	5 g	30 min	16.5 %
Boil	Cascade	20 g	20 min	7.8 %
Whirlpool	Cascade	30 g	20 min	7.8 %
Dry Hop	Cascade	50 g	3 day(s)	7.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	100 g	---