

## test,test

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- Gravity **18.2 BLG**
- ABV ---
- IBU **98**
- SRM **9.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.1 liter(s)**
- Total mash volume **30.8 liter(s)**

### Steps

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

### Mash step by step

- Heat up **23.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5.7 kg (74%)	79 %	6
Grain	Strzegom Karmel 30	1 kg (13%)	75 %	30
Grain	Pszeniczny	1 kg (13%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	12.5 %
Aroma (end of boil)	Cascade	30 g	0 min	7.7 %
Boil	Centennial	40 g	45 min	8.5 %
Dry Hop	Citra	30 g	7 day(s)	13.5 %
Boil	Citra	20 g	30 min	13.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - American Ale II	Ale	Liquid	500 ml	Wyeast Labs