

## w22

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **29**
- SRM **3.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **6 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **35 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**

### Mash step by step

- Heat up **30 liter(s)** of strike water to **68.8C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **1.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.3 kg (86%)	81 %	4
Grain	Pszeniczny	0.7 kg (14%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	5 g	60 min	9.3 %
Boil	Spalt	30 g	60 min	5.3 %
Boil	Spalt	30 g	10 min	5.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Safbrew