

## B quadrangular

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **26**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **3 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **47 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.38 liter(s) / kg**
- Mash size **35 liter(s)**
- Total mash volume **45.3 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **35 liter(s)** of strike water to **73.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **47 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	9 kg (87%)	81 %	4
Grain	Strzegom Monachijski typ I	0.9 kg (8.7%)	79 %	16
Grain	Karmelowy Jasny 30EBC	0.45 kg (4.3%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	60 g	60 min	5 %
Aroma (end of boil)	Cascade	60 g	15 min	3 %
Aroma (end of boil)	Cascade	60 g	5 min	3 %
Dry Hop	Cascade	60 g	3 day(s)	3 %
Dry Hop	Citra	60 g	3 day(s)	12 %
Dry Hop	Mosaic	30 g	3 day(s)	10 %
Boil	Citra	6 g	30 min	12 %

### Yeasts

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

Safale S-04	Ale	Dry	11.5 g	Safale
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