

## MS1.1

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- Gravity **13.1 BLG**
- ABV ---
- IBU **41**
- SRM **4.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **21.8 liter(s)** of **76C** water or to achieve **34.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (76.9%)	80 %	5
Grain	Pszeniczny	1 kg (15.4%)	85 %	4
Grain	Strzegom Wiedeński	0.5 kg (7.7%)	79 %	10

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	60 min	12 %
Boil	Mosaic	10 g	60 min	10 %
Boil	Cascade	10 g	60 min	6 %
Boil	Citra	20 g	10 min	12 %
Boil	Mosaic	20 g	10 min	10 %
Boil	Cascade	20 g	10 min	6 %
Dry Hop	Citra	20 g	3 day(s)	12 %
Dry Hop	Mosaic	20 g	3 day(s)	10 %
Dry Hop	Cascade	20 g	3 day(s)	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	10.5 g	Fermentis
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