

Mars

- Gravity **12.5 BLG**
- ABV ---
- IBU **51**
- SRM **7.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **69 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **5 min** at **76C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.3 kg (87.8%)	79 %	6
Grain	Strzegom Monachijski typ II	0.3 kg (6.1%)	79 %	22
Grain	Carahell	0.1 kg (2%)	77 %	26
Grain	Pale caramalt	0.1 kg (2%)	78 %	16
Grain	Cara Gold Castlemalting	0.1 kg (2%)	78 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	25 g	60 min	13 %
Boil	Mosaic	10 g	60 min	12 %
Boil	Mosaic	10 g	20 min	12 %
Aroma (end of boil)	Cascade	30 g	0 min	6 %
Aroma (end of boil)	Citra	30 g	0 min	10 %
Aroma (end of boil)	Mosaic	10 g	0 min	12 %

Yeasts

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