

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **40**
- SRM **10**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **62 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **70 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (43.9%)	80 %	5
Grain	Viking Pilsner malt	2.5 kg (43.9%)	82 %	4
Grain	Strzegom Karmel 30	0.2 kg (3.5%)	75 %	30
Grain	Caraaroma	0.2 kg (3.5%)	78 %	400
Grain	Płatki owsiane	0.3 kg (5.3%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Green Bullet	15 g	60 min	11 %
Boil	Simcoe	10 g	40 min	13.2 %
Boil	Marynka	9 g	60 min	10 %
Dry Hop	Simcoe	15 g	7 day(s)	13.2 %
Aroma (end of boil)	East Kent Goldings	10 g	10 min	5.1 %
Dry Hop	Chinook	15 g	7 day(s)	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safbrew T-58	Ale	Dry	11.5 g	Fermentis
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