

Keg

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **27**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.9 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **41.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **29.6 liter(s)**

Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **79 C**, Time **15 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **69.8C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **79C**
- Sparge using **28.2 liter(s)** of **76C** water or to achieve **41.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (62.5%)	80 %	5
Grain	Strzegom Pszeniczny	1 kg (12.5%)	81 %	6
Grain	płatki jęczmienne	1 kg (12.5%)	60 %	4
Grain	Płatki owsiane	1 kg (12.5%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	East Kent Goldings	10 g	10 min	5.1 %
Aroma (end of boil)	Styrian Golding	10 g	10 min	3.6 %
Aroma (end of boil)	East Kent Goldings	10 g	5 min	5.1 %
Aroma (end of boil)	Styrian Golding	10 g	10 min	3.6 %
Whirlpool	East Kent Goldings	10 g	10 min	5.1 %
Whirlpool	Styrian Golding	10 g	10 min	3.6 %
Whirlpool	East Kent Goldings	10 g	5 min	5.1 %
Whirlpool	Styrian Golding	10 g	10 min	3.6 %
Dry Hop	East Kent Goldings	60 g	4 day(s)	5.1 %
Dry Hop	Styrian Golding	60 g	4 day(s)	3.6 %

Dry Hop	Magnum	100 g	4 day(s)	13.5 %
Aroma (end of boil)	Magnum	25 g	10 min	13.5 %
Aroma (end of boil)	Magnum	25 g	5 min	13.5 %
Whirlpool	Magnum	25 g	10 min	13.5 %
Whirlpool	Magnum	25 g	5 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Fermentis