

Kawalerskie

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **34**
- SRM **5.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **19.7 liter(s)**
- Total mash volume **25.8 liter(s)**

Steps

- Temp **63 C**, Time **35 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **15 min**
- Temp **79 C**, Time **5 min**

Mash step by step

- Heat up **19.7 liter(s)** of strike water to **69.7C**
- Add grains
- Keep mash **35 min** at **63C**
- Keep mash **20 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **79C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (65%)	82 %	4
Grain	Pszeniczny	1 kg (16.3%)	85 %	4
Grain	Fawcett - Crystal	0.25 kg (4.1%)	70 %	130
Grain	Żytni	0.9 kg (14.6%)	85 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	30 g	60 min	4 %
Boil	Kazbek	25 g	30 min	6.7 %
Boil	Premiant	25 g	30 min	8.1 %
Boil	Simcoe	15 g	0 min	13.2 %
Dry Hop	Simcoe	10 g	7 day(s)	13.2 %
Dry Hop	Saaz (Czech Republic)	20 g	7 day(s)	4.5 %
Dry Hop	Kazbek	25 g	7 day(s)	6.7 %
Dry Hop	Premiant	25 g	7 day(s)	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	10 g	---