

Iwóweckie

- Gravity **14.5 BLG**
- ABV ---
- IBU **34**
- SRM **12.1**
- 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 **73 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	4.5 kg (69.2%)	80 %	8
Grain	Pszeniczny	0.7 kg (10.8%)	85 %	4
Grain	Weyermann - Melanoiden Malt	1 kg (15.4%)	81 %	53
Grain	Weyermann - Carared	0.3 kg (4.6%)	75 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	20 g	60 min	9.5 %
Boil	Mosaic	30 g	20 min	10 %
Whirlpool	Citra	50 g	0 min	12 %
Whirlpool	Mosaic	20 g	0 min	10 %
Dry Hop	Cascade	50 g	4 day(s)	6 %
Dry Hop	Mosaic	50 g	4 day(s)	10 %
Dry Hop	Amarillo	30 g	4 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11 g	---