

robertowe pale ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **36**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.2 kg (59.3%)	80 %	7
Grain	Strzegom Pilzneński	1 kg (18.5%)	80 %	4
Grain	Monachijski	0.6 kg (11.1%)	79 %	12
Adjunct	Płatki owsiane	0.4 kg (7.4%)	80 %	3
Grain	Bestmalz Carmel Pils	0.2 kg (3.7%)	76 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Phoenix	30 g	20 min	11 %
Aroma (end of boil)	Chinook	20 g	15 min	12.8 %
Aroma (end of boil)	Progress	40 g	5 min	5.5 %
Dry Hop	Cascade PL	45 g	3 day(s)	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min