

Polish Pale Ale/Spezial Gruppe 3 Beer

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **39**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **79 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **79C**
- Sparge using **19 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	4 kg (80%)	--- %	7
Grain	Karmelowy Jasny	0.3 kg (6%)	--- %	30
Grain	Płatki owsiane	0.3 kg (6%)	--- %	3
Grain	Płatki jęczmienne	0.4 kg (8%)	--- %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	55 min	10 %
Boil	Sybilla	35 g	10 min	3.5 %
Dry Hop	Sybilla	15 g	14 day(s)	3.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale