

## #12 Polish Pale Ale

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **40**
- SRM **10.1**
- Style **English IPA**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **25 min**
- Temp **72 C**, Time **35 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **25 min** at **63C**
- Keep mash **35 min** at **72C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (66.7%)	80 %	4
Grain	Strzegom Pale Ale	1 kg (16.7%)	79 %	6
Grain	Strzegom Karmel 300	0.25 kg (4.2%)	70 %	299
Grain	Strzegom Karmel 150	0.25 kg (4.2%)	75 %	150
Sugar	Cukier	0.5 kg (8.3%)	80 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski	50 g	10 min	6 %
Boil	Marynka	50 g	30 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.2 g	---