

## #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 | ---        |