

## Hopfest pale ale (wersja robocza)

- Gravity **10 BLG**
- ABV **4 %**
- IBU **20**
- SRM **4.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.3 liter(s)**
- Total mash volume **17.1 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **13.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **75C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilznieński	3.2 kg (84.2%)	80 %	4
Grain	Strzegom Karmel 300	0.05 kg (1.3%)	70 %	299
Grain	Płatki pszeniczne	0.3 kg (7.9%)	85 %	3
Grain	Płatki owsiane	0.2 kg (5.3%)	85 %	3
Grain	zakwaszający	0.05 kg (1.3%)	80 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	20 min	12 %
Boil	Chinook	20 g	10 min	12 %
Boil	Mosaic	20 g	0 min	11 %
Whirlpool	Mosaic	30 g	0 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10 g	---