

# Polska IPA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **84**
- SRM **4**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.1 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **20.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount        | Yield | EBC |
|-------|-------------------|---------------|-------|-----|
| Grain | Pale Ale Flagon   | 5 kg (86.2%)  | 80 %  | 5   |
| Grain | Płatki owsiane    | 0.4 kg (6.9%) | 60 %  | 3   |
| Grain | Płatki pszeniczne | 0.4 kg (6.9%) | 60 %  | 3   |

## Hops

| Use for            | Name     | Amount | Time   | Alpha acid |
|--------------------|----------|--------|--------|------------|
| Boil               | Magnum   | 20 g   | 60 min | 11.5 %     |
| Boil               | EXP 2/20 | 20 g   | 15 min | 11.2 %     |
| Boil               | Książęcy | 20 g   | 15 min | 10.1 %     |
| Boil               | Książęcy | 15 g   | 5 min  | 10 %       |
| Boil               | Exp      | 15 g   | 5 min  | 11 %       |
| Boil               | Książęcy | 15 g   | 0 min  | 10 %       |
| Boil               | Exp      | 15 g   | 0 min  | 11 %       |
| Whirlpool          | Książęcy | 50 g   | 0 min  | 10 %       |
| 15 minut 80 stopni |          |        |        |            |
| Whirlpool          | Exp      | 50 g   | 0 min  | 11 %       |
| 15 minut 80 stopni |          |        |        |            |
| Boil               | Magnat   | 30 g   | 60 min | 12 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | Fermentis  |