

Polish ipa

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **52**
- SRM **4**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **14.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|-------|-----|
| Grain | Pilznieński | 2.8 kg (75.7%) | 81 % | 4 |
| Grain | Pszeniczny | 0.5 kg (13.5%) | 85 % | 4 |
| Grain | Płatki owsiane | 0.2 kg (5.4%) | 60 % | 3 |
| Grain | Płatki pszeniczne | 0.2 kg (5.4%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------------|--------|--------|------------|
| Boil | Zula | 10 g | 60 min | 8.3 % |
| Boil | Książęcy | 20 g | 30 min | 7 % |
| Boil | Rody hodowlane | 30 g | 10 min | 9.2 % |
| Whirlpool | Rody hodowlane | 20 g | 15 min | 9.2 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------|--------|---------|--------|
| Water Agent | Gips | 5 g | Mash | 90 min |

| | | | | |
|--------|------|-----|------|--------|
| Fining | mech | 5 g | Boil | 10 min |
|--------|------|-----|------|--------|