

Pipa

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **47**
- SRM **4.4**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **50 min**
- Evaporation rate **10 %/h**
- Boil size **20.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **20.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt | 3.8 kg (82.6%) | 81 % | 5 |
| Grain | Pszeniczny | 0.5 kg (10.9%) | 85 % | 4 |
| Grain | Weyermann - Carapils | 0.2 kg (4.3%) | 78 % | 4 |
| Grain | Płatki owsiane | 0.1 kg (2.2%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------------|--------|--------|------------|
| Boil | Izabella | 50 g | 40 min | 6.8 % |
| Boil | Rody Hodowlane | 25 g | 5 min | 9.3 % |
| Whirlpool | Rody Hodowlane | 25 g | 0 min | 9.3 % |
| Whirlpool | Książęcy | 100 g | 0 min | 8.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------|------|------|--------|------------|
| saflager us 05 | Ale | Dry | 23 g | --- |