

Micro RYE IPA (hipcio)

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **27**
- SRM **2.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **5.6 liter(s)**
- Trub loss **5 %**
- Size with trub loss **5.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **7.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **3.5 liter(s)**
- Total mash volume **4.5 liter(s)**

Steps

- Temp **66 C**, Time **10 min**
- Temp **62 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **3.5 liter(s)** of strike water to **68.1C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **10 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **4.6 liter(s)** of **76C** water or to achieve **7.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|----------------|--------|-----|
| Grain | Pilzneński | 0.7 kg (69.3%) | 81 % | 4 |
| Grain | Płatki owsiane | 0.2 kg (19.8%) | 85 % | 3 |
| Grain | Maris Otter | 0.04 kg (4%) | 81 % | 6 |
| Grain | Rye, Flaked | 0.07 kg (6.9%) | 78.3 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------------|--------|--------|------------|
| First Wort | Hersbrucker | 2 g | 80 min | 3 % |
| Boil | Nelson Sauvín | 4.1 g | 60 min | 11 % |
| Aroma (end of boil) | Motueka | 5.46 g | 5 min | 7 % |
| Whirlpool | Citra | 5.46 g | 0 min | 7.1 % |
| Whirlpool | Nelson Sauvín | 5.46 g | 0 min | 4.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M44 US West Coast | Ale | Dry | 3.8 g | Mangrove Jack's |