

## Micro IPA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **35**
- SRM **4.7**
- Style **American IPA**

### 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 **25.3 liter(s)**

### Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **17.4 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **13 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount       | Yield | EBC |
|-------|-----------------------|--------------|-------|-----|
| Grain | Pilzneński            | 1 kg (23%)   | 81 %  | 4   |
| Grain | Żytni                 | 1 kg (23%)   | 85 %  | 8   |
| Grain | Płatki owsiane        | 1 kg (23%)   | 85 %  | 3   |
| Grain | Monachijski           | 1 kg (23%)   | 80 %  | 16  |
| Grain | Caramel Pils Bestmalz | 0.35 kg (8%) | 78 %  | 4   |

### Hops

| Use for | Name     | Amount | Time     | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil    | Citra    | 10 g   | 60 min   | 12 %       |
| Boil    | Amarillo | 50 g   | 10 min   | 10 %       |
| Dry Hop | Amarillo | 50 g   | 3 day(s) | 10 %       |
| Dry Hop | Citra    | 90 g   | 3 day(s) | 12 %       |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 7 g    | ---        |

### Extras

| Type   | Name    | Amount | Use for | Time   |
|--------|---------|--------|---------|--------|
| Flavor | Laktoza | 200 g  | Boil    | 10 min |

## Notes

- NA wzor  
<https://trzechkumpli.pl/piwo/our-new-ipa-hazy-rye-micro-ipa/>  
*Sep 4, 2023, 10:36 PM*