

Trening jakościowy

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **35**
- SRM **5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **23.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|----------------------------|----------------|-------|-----|
| Grain | słód Pale Ale | 4 kg (68.4%) | 79 % | 6 |
| Grain | słód pszeniczny Heidelberg | 0.6 kg (10.3%) | 82 % | 3 |
| Grain | słód Pale Ale Maris Otter | 1 kg (17.1%) | 80 % | 5 |
| Adjunct | płatki owsiane | 0.25 kg (4.3%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------|--------|-----------|------------|
| Boil | Chinook (USA) | 46 g | 20 min | 11.6 % |
| Aroma (end of boil) | Amarillo (USA) | 20 g | 0 min | 8.7 % |
| Aroma (end of boil) | Simcoe (USA) | 20 g | 0 min | 13.2 % |
| Aroma (end of boil) | Centennial (USA) | 20 g | 0 min | 10.2 % |
| Dry Hop | Citra (USA) | 20 g | 14 day(s) | 13.7 % |
| Dry Hop | Simcoe (USA) | 20 g | 14 day(s) | 13.2 % |
| Dry Hop | Amarillo (USA) | 20 g | 14 day(s) | 8.7 % |
| Dry Hop | Mosaic (USA) | 20 g | 14 day(s) | 12 % |
| Dry Hop | Citra (USA) | 30 g | 2 day(s) | 13.7 % |
| Dry Hop | Simcoe (USA) | 30 g | 2 day(s) | 13.2 % |

| | | | | |
|---------|----------------|------|----------|-------|
| Dry Hop | Amarillo (USA) | 30 g | 2 day(s) | 8.7 % |
| Dry Hop | Mosaic (USA) | 30 g | 2 day(s) | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safeale S-33 | Ale | Slant | 200 ml | Fermentis |