

Podlahia

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **92**
- SRM **5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.3 liter(s)**
- Total mash volume **32.4 liter(s)**

Steps

- Temp **63 C**, Time **80 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **24.3 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **80 min** at **63C**
- Keep mash **10 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------------------|------------------------|----------------|--------|-----|
| Grain | Briess - Pale Ale Malt | 3.5 kg (43.2%) | 80 % | 7 |
| Grain | Strzegom Pilzneński | 3.5 kg (43.2%) | 80 % | 4 |
| Grain | Pszenica niesłodowana | 0.5 kg (6.2%) | 75 % | 3 |
| Grain | Płatki owsiane | 0.5 kg (6.2%) | 60 % | 3 |
| Ześrutowany owies | | | | |
| Grain | Acid Malt | 0.1 kg (1.2%) | 58.7 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil | Apollo | 50 g | 60 min | 17 % |
| Boil | Apollo | 20 g | 5 min | 17 % |
| Whirlpool | Cascade | 50 g | 30 min | 6 % |
| Whirlpool | Mackinac | 50 g | 30 min | 10 % |
| Dry Hop | Cascade | 50 g | 7 day(s) | 6 % |
| Dry Hop | Mackinac | 50 g | 7 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|--------------|-----|-----|------|--------|
| Safale US-05 | Ale | Dry | 23 g | Safale |
|--------------|-----|-----|------|--------|