

Dzień niepodległości

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **37**
- SRM **7.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (76.9%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ I | 0.75 kg (11.5%) | 79 % | 16 |
| Grain | Karmelowy Czerwony | 0.75 kg (11.5%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------|--------|----------|------------|
| Boil | Citra | 30 g | 40 min | 12.3 % |
| Boil | Citra | 20 g | 10 min | 12.3 % |
| Whirlpool | Citra | 100 g | 15 min | 12.3 % |
| Dry Hop | Cita | 50 g | 5 day(s) | 12.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 15 g | Fermentis |