

Ostatek

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **15**
- SRM **8.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **18.5 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **65 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18.5 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **75 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 1 kg (20%) | 80 % | 5 |
| Grain | Fawcett Maris Otter | 0.7 kg (14%) | 81 % | 6 |
| Grain | Viking Pale Ale malt | 0.7 kg (14%) | 80 % | 5 |
| Grain | Pilznieński | 0.5 kg (10%) | 81 % | 4 |
| Grain | Pszeniczny | 0.4 kg (8%) | 85 % | 4 |
| Grain | Abbey Malt Weyermann | 0.8 kg (16%) | 75 % | 45 |
| Grain | Fawcett Caramalt | 0.5 kg (10%) | 76 % | 69 |
| Grain | Płatki pszeniczne | 0.1 kg (2%) | 85 % | 3 |
| Grain | Płatki owsiane | 0.3 kg (6%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | Warrior | 2 g | 60 min | 15.5 % |
| Boil | Citra | 12 g | 30 min | 12 % |
| Whirlpool | Citra | 38 g | 30 min | 12 % |
| Dry Hop | Citra | 100 g | 3 day(s) | 12 % |
| Dry Hop | Mosaic | 100 g | 3 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------|-----------|--------|---------|--------|
| Other | Chłodnica | 1 g | Boil | 15 min |