

IPA plus Warjacje

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **37**
- SRM **4.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **66 liter(s)**
- Trub loss **2 %**
- Size with trub loss **68.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **78.4 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **60 liter(s)**
- Total mash volume **80 liter(s)**

Steps

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

Mash step by step

- Heat up **60 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **38.4 liter(s)** of **76C** water or to achieve **78.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Viking Pilsner malt | 14.5 kg (72.5%) | 82 % | 4 |
| Grain | Weyermann pszeniczny jasny | 4 kg (20%) | 80 % | 6 |
| Grain | Płatki owsiane | 1.5 kg (7.5%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil | lunga | 140 g | 10 min | 10.3 % |
| Whirlpool | Mandarina Bavaria | 200 g | 30 min | 9.1 % |