

#ipa na oko

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **52**
- SRM **4.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **29.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **35.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.1 liter(s)**
- Total mash volume **30.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **23.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **35.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|---------------|--------|-----|
| Grain | Pilzneński | 4 kg (51.9%) | 81 % | 4 |
| Grain | Colorado Pale Ale | 1 kg (13%) | 79 % | 6 |
| Grain | Pszeniczny | 2 kg (26%) | 85 % | 4 |
| Grain | Acid Malt | 0.5 kg (6.5%) | 58.7 % | 6 |
| Grain | Żytni | 0.2 kg (2.6%) | 85 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 50 g | 35 min | 15.5 % |
| Whirlpool | Cascade | 100 g | 5 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale | Dry | 10 g | Danstar |