

ipa z tego co mam

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **56**
- SRM **6.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **70.4C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------|--------------|-------|-----|
| Grain | Pilzneński | 4 kg (66.7%) | 81 % | 4 |
| Grain | Monachijski | 2 kg (33.3%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 10 g | 60 min | 15.5 % |
| Boil | Amarillo | 20 g | 30 min | 9.5 % |
| Boil | Citra | 20 g | 15 min | 12 % |
| Boil | Marynka | 20 g | 10 min | 10 % |
| Boil | Amarillo | 20 g | 1 min | 9.5 % |
| Boil | Marynka | 20 g | 1 min | 10 % |
| Boil | Columbus/Tomahawk/Zeus | 5 g | 40 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|-------|--------|------------|
| Us05 | Ale | Slant | 100 ml | --- |