

apa 1 działka

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **14**
- SRM **6.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **23.2 liter(s)**

Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pilzneński | 5 kg (97.1%) | 81 % | 4 |
| Grain | Strzegom Karmel 300 | 0.15 kg (2.9%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-----------------------|--------|--------|------------|
| Boil | lunga | 10 g | 60 min | 10 % |
| Boil | Saaz (Czech Republic) | 20 g | 15 min | 4.5 % |
| Whirlpool | Saaz (Czech Republic) | 20 g | 0 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |