

benc z humorkiem

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **57**
- SRM **5.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **17.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.5 kg (85.4%) | 77 % | 5 |
| Grain | Płatki owsiane | 0.4 kg (9.8%) | 80 % | 3 |
| Grain | Karmelowy Czerwony | 0.2 kg (4.9%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Citra | 15 g | 45 min | 12 % |
| Boil | Citra | 17 g | 30 min | 12 % |
| Boil | Citra | 17 g | 10 min | 12 % |
| Aroma (end of boil) | WAI-ITI | 30 g | 0 min | 1.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |