

Ale citra na rozruch

- Gravity **12.9 BLG**
- ABV ---
- IBU **21**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.4 liter(s)**

Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **73 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4 kg (77.7%) | 79 % | 6 |
| Grain | Pszeniczny | 1 kg (19.4%) | 85 % | 4 |
| Grain | Acid Malt (zakwaszający) | 0.15 kg (2.9%) | 65 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | Citra | 10 g | 45 min | 12.4 % |
| Boil | Citra | 15 g | 10 min | 12.4 % |
| Whirlpool | Citra | 15 g | 10 min | 12.4 % |
| Dry Hop | Citra | 40 g | 3 day(s) | 15.2 % |
| Dry Hop | Dr Rudi | 40 g | 3 day(s) | 11.3 % |
| Dry Hop | Galaxy | 20 g | 3 day(s) | 15 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------------|--------|---------|--------|
| Water Agent | gips | 5 g | Mash | 60 min |
| Flavor | skórka pomarańczy | 15 g | Boil | 10 min |