

rzeźnik

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **45**
- SRM **11**
- Style **Red IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **8 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **65.5 C**, Time **90 min**
- Temp **75.6 C**, Time **20 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **90 min** at **65.5C**
- Keep mash **20 min** at **75.6C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 6.3 kg (98.4%) | 80 % | 5 |
| Grain | Jęczmień palony | 0.1 kg (1.6%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 12 g | 60 min | 15.5 % |
| Boil | Citra | 10 g | 30 min | 12 % |
| Boil | Simcoe | 10 g | 30 min | 13.2 % |
| Boil | amarillo | 10 g | 15 min | 7.5 % |
| Boil | Simcoe | 10 g | 15 min | 13.2 % |
| Dry Hop | Citra | 35 g | 3 day(s) | 12 % |
| Dry Hop | Simcoe | 35 g | 3 day(s) | 13.2 % |
| Dry Hop | Amarillo | 20 g | 3 day(s) | 7.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 140 ml | Fermentum Mobile |