

Pale Ale NUMER 1

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **36**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **68 C**, Time **20 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **68C**
- Keep mash **15 min** at **76C**
- Sparge using **12.6 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 | 2.5 kg (45.5%) | 80 % | 5 |
| Grain | Pilzniejszy | 2.5 kg (45.5%) | 81 % | 4 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (9.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Cascade | 20 g | 50 min | 6 % |
| Boil | Citra | 30 g | 20 min | 12 % |
| Boil | Vanguard | 10 g | 10 min | 5.5 % |

Yeasts

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