

Red

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **41**
- SRM **13.2**
- 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 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **25.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **19 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Pilzneński | 3 kg (47.2%) | 81 % | 3 |
| Grain | viking malt red active | 2 kg (31.5%) | 78 % | 35 |
| Grain | Weyermann - Carared | 1 kg (15.7%) | 75 % | 45 |
| Grain | Płatki pszeniczne | 0.3 kg (4.7%) | 60 % | 3 |
| Grain | Jęczmień palony | 0.05 kg (0.8%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | CTZ | 20 g | 60 min | 14.5 % |
| Boil | CTZ | 10 g | 30 min | 14.5 % |
| Boil | Amarillo | 10 g | 5 min | 9.5 % |
| Aroma (end of boil) | Amarillo | 10 g | 0 min | 9.5 % |
| Aroma (end of boil) | Citra | 10 g | 0 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 4 g | Boil | 60 min |
| Fining | mech irlandzki | 5 g | Boil | 15 min |