

Weselne

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **27**
- SRM **6.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **43 liter(s)**
- Trub loss **5 %**
- Size with trub loss **46 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **56.2 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33 liter(s)**
- Total mash volume **44 liter(s)**

Steps

- Temp **65 C**, Time **90 min**

Mash step by step

- Heat up **33 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Sparge using **34.2 liter(s)** of **76C** water or to achieve **56.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 6 kg (54.5%) | --- % | 3 |
| Grain | Przeniczny | 1 kg (9.1%) | --- % | 4 |
| Grain | Monachijski | 1 kg (9.1%) | --- % | 16 |
| Grain | Cara Blonde - Castle Malting | 1 kg (9.1%) | --- % | 15 |
| Grain | Karmelowy Jasny 30EBC | 2 kg (18.2%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 10 g | 60 min | 16.5 % |
| Boil | Nelson Sauvín | 15 g | 60 min | 12 % |
| Boil | Nelson Sauvín | 15 g | 25 min | 12 % |
| Boil | Citra | 15 g | 5 min | 12 % |
| Boil | Columbus/Tomahawk/Zeus | 15 g | 5 min | 16.5 % |
| Whirlpool | Citra | 35 g | 0 min | 12 % |
| Dry Hop | Citra | 100 g | 7 day(s) | 12 % |
| Dry Hop | Centennial | 50 g | 7 day(s) | 8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|-------------|-------------|---------------|-------------------|
| Safale S-04 | Ale | Dry | 23 g | Fermentis |