

hoppy ale

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **38**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **16.8 liter(s)**

Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Pszeniczny | 0.6 kg (20%) | 85 % | 4 |
| Grain | Viking Pale Ale malt | 2 kg (66.7%) | 80 % | 5 |
| Grain | Weyermann - Vienna Malt | 0.3 kg (10%) | 81 % | 8 |
| Grain | Caramel/Crystal Malt - 10L | 0.1 kg (3.3%) | 75 % | 20 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|--------------------|--------|----------|------------|
| Boil | Marynka | 24 g | 45 min | 7 % |
| Boil | Kazbek | 10 g | 10 min | 6.5 % |
| Boil | Lublin (Lubelski) | 10 g | 10 min | 4 % |
| Whirlpool | Kazbek | 10 g | 15 min | 6.5 % |
| Whirlpool | Tomyski | 13 g | 15 min | 3.5 % |
| Dry Hop | citra i centennial | 15 g | 3 day(s) | 12 % |
| Dry Hop | Kazbek | 25 g | 3 day(s) | 7 % |
| Dry Hop | Lublin (Lubelski) | 25 g | 3 day(s) | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| k97 | Ale | Dry | 11 g | fermentis |