

ppa 2024

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **38**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **14.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt r | 2.5 kg (83.3%) | 93 % | 4 |
| Grain | Viking Munich Malt | 0.5 kg (16.7%) | 88 % | 18 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil | Magnat r | 5 g | 60 min | 12 % |
| Boil | Marynka | 15 g | 22 min | 7.3 % |
| Boil | Lublin (Lubelski) | 15 g | 22 min | 4.3 % |
| Boil | Marynka | 15 g | 12 min | 7.3 % |
| Boil | Lublin (Lubelski) | 15 g | 12 min | 4.3 % |
| Dry Hop | Zula | 30 g | 7 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 150 ml | Fermentis |