

port

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **46**
- SRM **37.4**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34.3 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|------|
| Grain | Viking Pilsner malt | 5 kg (56.8%) | 82 % | 4 |
| Grain | Bruntal | 1 kg (11.4%) | 81 % | 26 |
| Grain | Cara Gold Castlemalting | 0.2 kg (2.3%) | 78 % | 120 |
| Grain | Carafa III | 0.2 kg (2.3%) | 70 % | 1500 |
| Grain | black bruntal | 0.2 kg (2.3%) | --- % | 1500 |
| Grain | viking black | 0.2 kg (2.3%) | --- % | 1300 |
| Grain | Viking Munich Malt | 1 kg (11.4%) | 78 % | 18 |
| Grain | Viking Vienna Malt | 1 kg (11.4%) | 79 % | 7 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | hallertauer taurus | 30 g | 60 min | 14 % |
| Boil | Marynka | 30 g | 30 min | 8.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|------|------|--------|------------|
| Gozdawa Pure Ale Yeast 7 | Ale | Dry | 10 g | --- |