

Domini

- Gravity **22 BLG**
- ABV **9.9 %**
- IBU **47**
- SRM **31.6**

Batch size

- Expected quantity of finished beer **100000 liter(s)**
- Trub loss **5 %**
- Size with trub loss **105000 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **126500 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **139122 liter(s)**
- Total mash volume **185496 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **50 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **139122 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **50 min** at **73C**
- Keep mash **10 min** at **76C**
- Sparge using **33752 liter(s)** of **76C** water or to achieve **126500 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|-----------------|-------|------|
| Grain | Viking Pale Ale malt | 22730 kg (49%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 6818 kg (14.7%) | 79 % | 16 |
| Grain | Strzegom Monachijski typ II | 4550 kg (9.8%) | 79 % | 22 |
| Grain | Słód Caramunich Typ II Weyermann | 4550 kg (9.8%) | 73 % | 120 |
| Grain | Caraaroma | 3181 kg (6.9%) | 78 % | 400 |
| Grain | Carafa III | 909 kg (2%) | 70 % | 1034 |
| Grain | Jęczmień niesłodowany | 3636 kg (7.8%) | 75 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|----------|--------|------------|
| Boil | Marynka | 270000 g | 60 min | 10 % |
| Boil | Lomik | 180000 g | 20 min | 3.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------|-------------|-------------|---------------|-------------------|
| Wyeast - Bavarian Lager | Lager | Liquid | 625000 ml | Wyeast Labs |