

Full Aroma Hops , Carlberg z wiki org

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **48**
- SRM **4.8**

Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **46.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **34.6 liter(s)**
- Total mash volume **45.1 liter(s)**

Steps

- Temp **40 C**, Time **1 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **34.6 liter(s)** of strike water to **43C**
- Add grains
- Keep mash **1 min** at **40C**
- Keep mash **20 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **75C**
- Sparge using **22.2 liter(s)** of **76C** water or to achieve **46.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|---------------|-------|-----|
| Grain | Viking Pilsner malt | 10 kg (95.2%) | 82 % | 4 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (4.8%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil | Magnum | 50 g | 90 min | 10.5 % |
| Boil | Lublin (Lubelski) | 50 g | 45 min | 6 % |
| Boil | Amarillo | 10 g | 5 min | 8.3 % |
| Dry Hop | Amarillo | 20 g | 4 day(s) | 8.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|--------------------|
| Safale S-04 | Ale | Dry | 42 g | Pierwsze pokolenie |