

Black Horse

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **63**
- SRM **42**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **20.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **14.8 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|---------------------------|---------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 3 kg (63.8%) | 85 % | 7 |
| Adjunct | Płatki owsiane | 1 kg (21.3%) | 60 % | 3 |
| Grain | Jęczmień palony | 0.3 kg (6.4%) | 55 % | 985 |
| Grain | Czekoladowy | 0.4 kg (8.5%) | 60 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil | Ekuanot | 15 g | 60 min | 14 % |
| Boil | Ekuanot | 20 g | 10 min | 14 % |
| Boil | Mosaic | 20 g | 10 min | 10 % |
| Whirlpool | Ekuanot | 15 g | 10 min | 14 % |
| Whirlpool | Mosaic | 30 g | 10 min | 10 % |