

# 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 %