

# Hornindal black ale

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **30**
- SRM **31.8**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18.5 liter(s)**

## Steps

- Temp **55 C**, Time **5 min**
- Temp **68 C**, Time **75 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **75 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	1.7 kg (41.5%)	85 %	7
Grain	Weyermann - Dark Munich Malt	1.3 kg (31.7%)	82 %	22
Grain	Strzegom Czekoladowy jasny	0.5 kg (12.2%)	68 %	400
Grain	Weyermann - Carafa Special III	0.2 kg (4.9%)	70 %	1300
Grain	Płatki żytnie	0.4 kg (9.8%)	60 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus	15 g	60 min	15.4 %
Boil	Columbus	35 g	0 min	15.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Kveik hornindal	Ale	Slant	100 ml	---