

# Whisky ale

---

- Gravity **12.4 BLG**
- ABV ---
- IBU **77**
- SRM **5.8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **15 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Barley, Torrefied	4 kg (88.9%)	79 %	4
Grain	Strzegom Karmel 30	0.5 kg (11.1%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	60 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M03 UK Dark Ale	Ale	Dry	10 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Other	płatki dębowe francuskie	50 g	Secondary	7 day(s)