

# Scottish Strong Ale

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- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **32**
- SRM **17**
- Style **Strong Scotch Ale**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **66 C**, Time **15 min**
- Temp **72 C**, Time **60 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **15 min** at **66C**
- Keep mash **60 min** at **72C**
- Sparge using **2.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Fawcett - Maris Otter	6 kg (93.8%)	81 %	6
Grain	Fawcett - Cara	0.3 kg (4.7%)	70 %	30
Grain	Jęczmień palony	0.1 kg (1.6%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	35 g	60 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	150 ml	fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	chlerek wapnia	5 g	Mash	60 min
Fining	whirflock	1 g	Boil	5 min