

# Scottish Ale

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- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **28**
- SRM **8.5**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.9 liter(s)**
- Total mash volume **14.6 liter(s)**

## Steps

- Temp **52 C**, Time **5 min**
- Temp **69 C**, Time **90 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **10.9 liter(s)** of strike water to **57.4C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **90 min** at **69C**
- Keep mash **5 min** at **76C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.3 kg (35.6%)	80 %	4
Grain	Monachijski	1.8 kg (49.3%)	80 %	16
Grain	Karmelowy Jasny 30EBC	0.15 kg (4.1%)	75 %	30
Grain	Casle Malting Whisky Nature	0.35 kg (9.6%)	85 %	4
Grain	Jęczmień palony	0.05 kg (1.4%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bramling	35 g	60 min	6 %
Boil	Bramling	15 g	5 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Notes

- po uzyskaniu negatywnej próby jodowej dorzucamy jęczmień palony  
*Apr 13, 2019, 10:57 AM*