

# scottish rye ale

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **23**
- SRM **13.2**
- Style **Scottish Export 80/-**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **9.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (78.1%)	81 %	4
Grain	Żytni	0.5 kg (15.6%)	85 %	8
Grain	Weyermann - Carapils	0.1 kg (3.1%)	78 %	4
Grain	Weyermann - Carafa I	0.1 kg (3.1%)	70 %	690

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	45 min	7.1 %
Boil	Marynka	15 g	5 min	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM12 W szkocką kratę	Ale	Liquid	100 ml	Fermentum Mobile

## Notes

- carafa 1 special szybki cold brew

whirflock  
*Jan 5, 2021, 11:45 AM*