

## irlandczyk

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **24**
- SRM **13.3**
- Style **Irish Red 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 **16.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **13.3 liter(s)**

### Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **35 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **10 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3 kg (90.4%)	81 %	6
Grain	Caramel/Crystal Malt - 10L	0.15 kg (4.5%)	75 %	160
Grain	Simpsons - Crystal Dark	0.15 kg (4.5%)	74 %	275
Grain	Black Barley (Roast Barley)	0.02 kg (0.6%)	55 %	1400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bramling	20 g	60 min	6 %
Boil	Bramling	10 g	15 min	6 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Fining	tabletki	2.5 g	Boil	10 min
Fining	finings	15 g	Secondary	---