

## red irish

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **29**
- SRM **9.8**
- Style **Irish Red Ale**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **14.6 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.6 liter(s)**
- Total mash volume **11.1 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **1 min**

### Mash step by step

- Heat up **8.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **75C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **14.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.6 kg (65%)	81 %	4
Grain	Strzegom Monachijski typ I	0.6 kg (24.4%)	79 %	16
Grain	Karmelowy Jasny 30EBC	0.15 kg (6.1%)	75 %	30
Grain	Strzegom Karmel 300	0.1 kg (4.1%)	70 %	299
Grain	Jęczmień palony	0.01 kg (0.4%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	10 g	60 min	8.3 %
Boil	East Kent Goldings	10 g	60 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	Fermentum Mobile