

## #2.1 Minium - Irish Red Ale - +10% chmielu

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **19**
- SRM **11.6**
- Style **Irish Red Ale**

### Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **50.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.2 liter(s)**
- Total mash volume **41.6 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **31.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **29.5 liter(s)** of **76C** water or to achieve **50.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	9.4 kg (89.3%)	83 %	6
Grain	Caramel/Crystal Malt - 40L	0.355 kg (3.4%)	74 %	79
Grain	Caramel/Crystal Malt - 120L	0.355 kg (3.4%)	72 %	236
Dry Extract	WES ekstrakt słodowy jasny	0.12 kg (1.1%)	100 %	30
Grain	Fawcett - Dark Crystal	0.3 kg (2.8%)	71 %	300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Kent Goldings	55 g	60 min	5.5 %
Boil	East Kent Goldings	11 g	60 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	2000 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirfloc	2.5 g	Boil	15 min

## Notes

- Na podstawie <https://byo.com/article/irish-red-ale-style-profile/>

Mill the grains and dough-in targeting a mash of around 1.5 quarts of water to 1 pound of grain (a liquor-to-grist ratio of about 3:1 by weight) and a temperature of 153 °F (67 °C). Hold the mash at 153 °F (67 °C) until enzymatic conversion is complete. Raise the temperature to mash out at 168 °F (76 °C). Sparge slowly with 170 °F (77 °C) water, collecting wort until the pre-boil kettle volume is around 6.5 gallons (24.6 L) and the gravity is 1.041 (10.3 °P).

The total wort boil time is 90 minutes. Add the bittering hops with 60 minutes remaining in the boil. Add Irish moss or other kettle finings with 15 minutes left in the boil. Chill the wort rapidly to 66 °F (19 °C), let the break material settle, rack to the fermenter and aerate thoroughly. Pitch the yeast. Use 10 grams of properly rehydrated dry yeast, 2 liquid yeast packages, or make an appropriate yeast starter. Ferment the wort at 66 °F (19 °C). When the fermentation is finished, carbonate the beer from 2 to 2.5 volumes.

Wody dolać do 13.2 BLG.\

/\* Jest więcej chmielu niż poprzednio, ze względu na rozcieńczanie

/\* Tym razem większe wysycenie - czyli 2,5 CO2  
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