

# IRA

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **20**
- SRM **16.2**
- 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 **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11.1 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **8.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **9.7 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.2 kg (43.2%)	81 %	4
Grain	Strzegom Monachijski typ II	0.9 kg (32.4%)	79 %	22
Grain	Jęczmień palony	0.08 kg (2.9%)	55 %	985
Grain	Karmelowy Czerwony	0.6 kg (21.6%)	75 %	59

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	20 g	60 min	4.5 %
Boil	Fuggles	5 g	15 min	4.5 %
Boil	Fuggles	5 g	5 min	4.5 %