

# IRA

- Gravity **13.3 BLG**
- ABV ---
- IBU **31**
- SRM **17.9**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.6 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4.5 kg (87.4%)	85 %	7
Grain	Strzegom Karmel 150	0.6 kg (11.7%)	75 %	150
Grain	Jęczmień palony	0.05 kg (1%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	10 g	60 min	4.5 %
Boil	Target	10 g	60 min	10.5 %
Boil	Fuggles	10 g	30 min	4.5 %
Boil	Target	10 g	30 min	10.5 %
Boil	Fuggles	10 g	5 min	4.5 %
Boil	Target	10 g	5 min	10.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	125 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	15 g	Boil	10 min