

# IRA

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- Gravity **12.1 BLG**
- ABV ---
- IBU **44**
- SRM **12.6**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **20.5 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **15.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (87.9%)	79 %	6
Grain	Carared	0.5 kg (11%)	75 %	39
Grain	Jęczmień palony	0.05 kg (1.1%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	50 min	10 %
Dry Hop	Rakau (NZ)	25 g	7 day(s)	9.5 %
Aroma (end of boil)	Rakau (NZ)	25 g	15 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Dry	11.5 g	Safale