

# IRA

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **17**
- SRM **8.2**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **37.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **45.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **31.1 liter(s)**
- Total mash volume **40 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **31.1 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **23.3 liter(s)** of **76C** water or to achieve **45.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	6 kg (67.4%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (5.6%)	79 %	16
Grain	Strzegom Pale Ale	0.5 kg (5.6%)	79 %	6
Grain	Caraamber	0.5 kg (5.6%)	75 %	59
Grain	Weyermann - Carared	1 kg (11.2%)	75 %	45
Grain	Słód Caramunich Typ II Weyermann	0.2 kg (2.2%)	73 %	120
Grain	Viking melanoidynowy	0.2 kg (2.2%)	75 %	60

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	30 min	10 %
Boil	Challenger	20 g	20 min	7 %
Boil	Challenger	10 g	10 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	1000 ml	Fermentum Mobile

## Extras

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