

# IRA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **19**
- SRM **10.1**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.2 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **8.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	IREKS Pilzneński	1.75 kg (70.6%)	80.5 %	4
Grain	Karmelowy Czerwony	0.2 kg (8.1%)	75 %	59
Grain	Monachijski	0.5 kg (20.2%)	80 %	16
Grain	Jęczmień palony	0.03 kg (1.2%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	10 g	45 min	4.8 %
Boil	Sybilla	15 g	20 min	4.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	60 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	2.5 g	Boil	10 min