

# Red Ale

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **18**
- SRM **12.5**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **22.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **25.3 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **78 C**, Time **10 min**
- Temp **100 C**, Time **60 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **72.4C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **78C**
- Keep mash **60 min** at **100C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	3 kg (54.5%)	80 %	16
Grain	red ale	1 kg (18.2%)	75 %	70
Grain	Żytni	1 kg (18.2%)	75 %	40
Grain	viking cookie	0.5 kg (9.1%)	78 %	50

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	15 g	30 min	7.1 %
Boil	Saaz (Czech Republic)	15 g	20 min	4.5 %
Aroma (end of boil)	Perle	15 g	10 min	7.1 %
Aroma (end of boil)	Ahtanum	15 g	10 min	3.9 %