

# red ale

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **30**
- SRM **15.6**
- Style **Red IPA**

## Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **55 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **66 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **44 liter(s)**
- Total mash volume **56.6 liter(s)**

## Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **44 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **34.6 liter(s)** of **76C** water or to achieve **66 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	5 kg (39.8%)	79 %	10
Grain	Monachijski	5 kg (39.8%)	80 %	18
Grain	Karmelowy Czerwony	2 kg (15.9%)	75 %	59
Grain	Strzegom Karmel 300	0.2 kg (1.6%)	70 %	299
Grain	Strzegom Karmel 600	0.3 kg (2.4%)	68 %	600
Grain	Jęczmień palony	0.07 kg (0.6%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	60 g	60 min	11 %
Aroma (end of boil)	Fuggles	20 g	15 min	4.5 %
Whirlpool	Fuggles	40 g	1 min	4.5 %