

# IRA polskie

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **25**
- SRM **9.6**
- 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 **16.3 liter(s)**
- Total mash volume **20.9 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **79 C**, Time **1 min**

## Mash step by step

- Heat up **16.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **79C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (75.3%)	80 %	4
Grain	Strzegom Monachijski typ II	0.3 kg (6.5%)	79 %	22
Grain	Strzegom Pale Ale	0.2 kg (4.3%)	79 %	6
Grain	Strzegom Bursztynowy	0.2 kg (4.3%)	70 %	49
Grain	Karmelowy Czerwony	0.4 kg (8.6%)	75 %	59
Grain	Jęczmień palony	0.05 kg (1.1%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	70 min	10 %
Boil	Challenger	15 g	30 min	7 %
Boil	Challenger	15 g	10 min	7 %

## Notes

- Ciemne 10 min. przed końcem zacierania  
*Sep 21, 2019, 6:57 PM*