

## red irish

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **29**
- SRM **9.8**
- Style **Irish Red Ale**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **14.6 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.6 liter(s)**
- Total mash volume **11.1 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **1 min**

### Mash step by step

- Heat up **8.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **75C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **14.6 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński                 | 1.6 kg (65%)   | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.6 kg (24.4%) | 79 %  | 16  |
| Grain | Karmelowy Jasny 30EBC      | 0.15 kg (6.1%) | 75 %  | 30  |
| Grain | Strzegom Karmel 300        | 0.1 kg (4.1%)  | 70 %  | 299 |
| Grain | Jęczmień palony            | 0.01 kg (0.4%) | 55 %  | 985 |

### Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | Zula               | 10 g   | 60 min | 8.3 %      |
| Boil    | East Kent Goldings | 10 g   | 60 min | 5.1 %      |

### Yeasts

| Name                      | Type | Form   | Amount | Laboratory       |
|---------------------------|------|--------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Liquid | 100 ml | Fermentum Mobile |