

# Irlandzkie

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **22**
- SRM **28.9**
- Style **Schwarzbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **23.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **17.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount           | Yield | EBC  |
|-------|---------------------|------------------|-------|------|
| Grain | Viking Munich Malt  | 5 kg (84.1%)     | 78 %  | 18   |
| Grain | Strzegom Karmel 150 | 0.692 kg (11.6%) | 75 %  | 150  |
| Grain | Viking Barwiący     | 0.25 kg (4.2%)   | 65 %  | 1400 |

## Hops

| Use for | Name                | Amount | Time   | Alpha acid |
|---------|---------------------|--------|--------|------------|
| Boil    | Spalt               | 20 g   | 60 min | 5.5 %      |
| Boil    | Hallertau Tradition | 20 g   | 60 min | 5 %        |

## Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 11.5 g | Fermentis  |