

# ES IRA

---

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **15**
- SRM **14.1**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.2 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.8 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **16.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **77C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC  |
|-------|------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale      | 4.6 kg (84.3%) | 79 %  | 6    |
| Grain | Strzegom Wiedeński     | 0.5 kg (9.2%)  | 79 %  | 10   |
| Grain | Strzegom Karmel<br>150 | 0.275 kg (5%)  | 75 %  | 150  |
| Grain | Strzegom Barwiący      | 0.08 kg (1.5%) | 68 %  | 1300 |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Puławski | 30 g   | 60 min | 4.3 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |