

# Imperialny Stout - kooperacja

- Gravity **28.9 BLG**
- ABV **14.1 %**
- IBU **41**
- SRM **43.6**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **30.2 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**

## Mash step by step

- Heat up **20.1 liter(s)** of strike water to **80C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC  |
|-------|--------------------------------|----------------|-------|------|
| Grain | Pilzneński                     | 7 kg (63.3%)   | 81 %  | 4    |
| Grain | Monachijski                    | 1 kg (9%)      | 80 %  | 16   |
| Grain | Żytni                          | 0.5 kg (4.5%)  | 85 %  | 8    |
| Grain | Briess - Chocolate Malt        | 0.25 kg (2.3%) | 60 %  | 690  |
| Grain | Żytni czekoladowy              | 0.25 kg (2.3%) | 60 %  | 700  |
| Grain | Strzegom Karmel 300            | 0.8 kg (7.2%)  | 70 %  | 299  |
| Grain | Weyermann - Carafa III Special | 0.25 kg (2.3%) | 70 %  | 1024 |
| Sugar | Brown Sugar, Dark Muscovado    | 1 kg (9%)      | 100 % | 99   |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 50 g   | 60 min | 11 %       |
| Boil    | lunga | 20 g   | 30 min | 11 %       |

## Yeasts

| Name                      | Type | Form  | Amount | Laboratory       |
|---------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Slant | 300 ml | Fermentum Mobile |

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 5 g    | Boil    | 15 min |