

irish rye stout

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **41**
- SRM **33.9**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **26.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--|-----------------|-------|------|
| Grain | Maris Otter Crisp | 2 kg (35.7%) | 83 % | 6 |
| Grain | Żytni | 2 kg (35.7%) | 85 % | 8 |
| Grain | Monachijski typ II 20-25 EBC Weyermann | 0.5 kg (8.9%) | 80 % | 20 |
| Grain | Płatki jęczmienne | 0.5 kg (8.9%) | 85 % | 3 |
| Grain | Carafa III | 0.2 kg (3.6%) | 70 % | 1300 |
| Grain | Jęczmień palony | 0.257 kg (4.6%) | 55 % | 1000 |
| Grain | Strzegom Czekoladowy ciemny | 0.048 kg (0.9%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.1 kg (1.8%) | 55 % | 1100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 27 g | 60 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------------|------|--------|---------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Liquid | 1000 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------|--------|---------|--------|
| Other | łuska ryżowa | 250 g | Mash | 10 min |