

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