

- Gravity **15.7 BLG**
- ABV ---
- IBU **53**
- SRM **45.6**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **16.5 liter(s)**
- Trub loss **15 %**
- Size with trub loss **19 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.3 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **15.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **22.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Irish Craft Pale Ale	2.5 kg (49.2%)	85 %	5
Grain	Weyermann - Light Munich Malt	2 kg (39.3%)	82 %	20
Grain	cara munich 2	0.185 kg (3.6%)	77 %	120
Grain	Black Barley (Roast Barley)	0.2 kg (3.9%)	55 %	1367
Grain	Weyermann - Chocolate Wheat	0.2 kg (3.9%)	74 %	1000

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	31.4 g	60 min	8.6 %
Aroma (end of boil)	Flyer	50 g	10 min	9.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP004 - Irish Ale Yeast	Ale	Liquid	35 ml	White Labs

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	3 g	Boil	5 min