

- Gravity **13.1 BLG**
- ABV ---
- IBU **25**
- SRM **17.2**
- Style **Irish Red Ale**

Batch size

- Expected quantity of finished beer **17.5 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

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

Mash step by step

- Heat up **13.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Irish Pale Ale Malt | 4 kg (87.9%) | 80 % | 5 |
| Grain | weyermann - caramunich T2 | 0.3 kg (6.6%) | 55 % | 110 |
| Grain | Weyermann - Caraamber | 0.2 kg (4.4%) | 75 % | 65 |
| Grain | Black Barley (Roast Barley) | 0.05 kg (1.1%) | 55 % | 1367 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Aroma (end of boil) | Willamette | 50 g | 5 min | 4.5 % |
| Aroma (end of boil) | Lublin (Lubelski) | 50 g | 5 min | 3.7 % |
| Boil | Marynka | 17 g | 30 min | 8.6 % |

Yeasts

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