

Rye Stout

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **57**
- SRM **45.5**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **26.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.6 liter(s)**
- Total mash volume **32.8 liter(s)**

Steps

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

Mash step by step

- Heat up **24.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|--------|------|
| Grain | Simpsons - Maris Otter | 3.5 kg (42.7%) | 81 % | 6 |
| Grain | Żytni | 2 kg (24.4%) | 85 % | 8 |
| Grain | Brown Malt (British Chocolate) | 0.6 kg (7.3%) | 70 % | 128 |
| Grain | Rye, Flaked | 0.5 kg (6.1%) | 78.3 % | 4 |
| Grain | Biscuit Malt | 0.5 kg (6.1%) | 79 % | 45 |
| Grain | Simpsons - Chocolate Malt | 0.5 kg (6.1%) | 73 % | 1067 |
| Grain | Simpsons - Roasted Barley | 0.3 kg (3.7%) | 70 % | 1084 |
| Grain | Strzegom Karmel 300 | 0.3 kg (3.7%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 41.2 g | 60 min | 16.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| WLP007 - Dry English Ale Yeast | Ale | Slant | 400 ml | White Labs |