

## rye01

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **22**
- SRM **5.8**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **27.5 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**

### Mash step by step

- Heat up **22 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Rye Malt               | 2.5 kg (45.5%) | 63 %  | 10  |
| Grain | Simpsons - Maris Otter | 2 kg (36.4%)   | 81 %  | 6   |
| Grain | Munich Malt            | 1 kg (18.2%)   | 80 %  | 18  |

### Hops

| Use for             | Name               | Amount | Time     | Alpha acid |
|---------------------|--------------------|--------|----------|------------|
| Boil                | East Kent Goldings | 30 g   | 55 min   | 5.1 %      |
| Boil                | East Kent Goldings | 24 g   | 15 min   | 5.1 %      |
| Boil                | East Kent Goldings | 24 g   | 5 min    | 5.1 %      |
| Aroma (end of boil) | East Kent Goldings | 75 g   | 0 min    | 5.1 %      |
| Dry Hop             | East Kent Goldings | 47 g   | 5 day(s) | 5.1 %      |

### Yeasts

| Name                 | Type | Form  | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| Danstar - Nottingham | Ale  | Slant | 200 ml | Danstar    |

### Extras

| Type   | Name      | Amount | Use for | Time   |
|--------|-----------|--------|---------|--------|
| Fining | protofloc | 3 g    | Boil    | 15 min |

|             |      |      |      |        |
|-------------|------|------|------|--------|
| Water Agent | ph52 | 20 g | Mash | 60 min |
|-------------|------|------|------|--------|