

# Żytni Stout 12'Blg

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **35**
- SRM **26.8**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **28.3 liter(s)**
- Total mash volume **37.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **28.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **31.8 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC  |
|-------|----------------------------|----------------|-------|------|
| Grain | Maris Otter Crisp          | 7 kg (74.1%)   | 83 %  | 6    |
| Grain | Caramel/Crystal Malt - 40L | 1.5 kg (15.9%) | 74 %  | 150  |
| Grain | Fawcett - Pale Chocolate   | 0.5 kg (5.3%)  | 71 %  | 600  |
| Grain | Carafa                     | 0.2 kg (2.1%)  | 70 %  | 1300 |
| Grain | Weyermann - Chocolate Rye  | 0.25 kg (2.6%) | 20 %  | 600  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Chinook | 25 g   | 60 min | 13 %       |
| Boil                | Citra   | 25 g   | 30 min | 12 %       |
| Aroma (end of boil) | Citra   | 25 g   | 5 min  | 12 %       |

## Yeasts

| Name                                     | Type | Form | Amount | Laboratory |
|--|------|------|--------|------------|
| Mangrove Jack's M42 New World Strong Ale | Ale  | Dry  | 10 g   | MJ         |