

## #45 Stout do risa

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **34**
- SRM **3.7**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **0 %**
- Size with trub loss **18 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **67 C**, Time **40 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **67C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

### Fermentables

| Type  | Name       | Amount      | Yield | EBC |
|-------|------------|-------------|-------|-----|
| Grain | Pilzneński | 4 kg (100%) | 81 %  | 4   |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Chinook | 30 g   | 30 min | 10.5 %     |