

## Dark Stout

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **29**
- SRM **34**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **44.6 liter(s)**
- Total mash volume **59.4 liter(s)**

### Fermentables

| Type  | Name                    | Amount           | Yield | EBC  |
|-------|-------------------------|------------------|-------|------|
| Grain | Optima Pale Ale         | 11.25 kg (75.8%) | 79 %  | 6    |
| Grain | Optima karmelowy ciemny | 2.25 kg (15.2%)  | 68 %  | 400  |
| Grain | Carafa Special typ 2    | 0.23 kg (1.5%)   | 65 %  | 1150 |
| Grain | Castlemalting Special B | 1.13 kg (7.6%)   | 77 %  | 290  |

### Hops

| Use for             | Name        | Amount | Time   | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil                | Challenger  | 49.5 g | 60 min | 7 %        |
| Aroma (end of boil) | Challenger  | 49.5 g | 5 min  | 7 %        |
| Boil                | Pacific Gem | 27 g   | 20 min | 15.3 %     |

### Yeasts

| Name                                     | Type | Form | Amount | Laboratory      |
|------------------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M42 New World Strong Ale | Ale  | Dry  | 22.5 g | Mangrove Jack's |