

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 |