

# stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **35**
- SRM **32.9**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Fermentables

| Type  | Name                         | Amount          | Yield | EBC |
|-------|------------------------------|-----------------|-------|-----|
| Grain | Simpsons - Maris Otter       | 3 kg (51.7%)    | 81 %  | 6   |
| Grain | Caraaroma                    | 0.75 kg (12.9%) | 78 %  | 400 |
| Grain | Weyermann - Caramel Rye Malt | 0.25 kg (4.3%)  | 74 %  | 175 |
| Grain | Weyermann - Dark Wheat Malt  | 0.25 kg (4.3%)  | 85 %  | 14  |
| Grain | Caramunich® typ I            | 0.25 kg (4.3%)  | 73 %  | 80  |
| Grain | Carafa II                    | 0.5 kg (8.6%)   | 70 %  | 812 |
| Grain | Platki owsiane               | 0.8 kg (13.8%)  | 85 %  | 3   |

## Hops

| Use for   | Name     | Amount | Time   | Alpha acid |
|-----------|----------|--------|--------|------------|
| Boil      | Cascade  | 15 g   | 60 min | 6 %        |
| Boil      | wa-ka-tu | 5 g    | 60 min | 7.9 %      |
| Boil      | wa-ka-tu | 15 g   | 45 min | 7.9 %      |
| Boil      | Cascade  | 5 g    | 30 min | 6 %        |
| Boil      | Fuggles  | 20 g   | 30 min | 4.5 %      |
| Boil      | wa-ka-tu | 5 g    | 15 min | 7.9 %      |
| Boil      | WAI-ITI  | 15 g   | 15 min | 4.1 %      |
| Whirlpool | WAI-ITI  | 10 g   | 0 min  | 4.1 %      |
| Whirlpool | Fuggles  | 5 g    | 0 min  | 4.5 %      |
| Whirlpool | Cascade  | 5 g    | 0 min  | 6 %        |