

# Chocolate orange stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **34**
- SRM **35.5**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC  |
|-------|----------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 1.5 kg (41.7%) | 80 %  | 5    |
| Grain | Monachijski          | 1 kg (27.8%)   | 80 %  | 16   |
| Grain | Pszeniczny           | 0.4 kg (11.1%) | 85 %  | 4    |
| Grain | Caraaroma            | 0.4 kg (11.1%) | 78 %  | 400  |
| Grain | Czekoladowy          | 0.15 kg (4.2%) | 60 %  | 788  |
| Grain | Carafa III           | 0.15 kg (4.2%) | 70 %  | 1034 |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 20 g   | 60 min | 10 %       |
| Boil    | Mandarina Bavaria | 30 g   | 0 min  | 10 %       |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 11 g   | ---        |

## Extras

| Type   | Name                      | Amount | Use for | Time  |
|--------|---------------------------|--------|---------|-------|
| Flavor | Suszona skorka pomaranczy | 20 g   | Boil    | 5 min |
| Other  | Łuska kakaowca            | 20 g   | Boil    | 5 min |