

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 |