

## to jest biter

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **23**
- SRM **7.3**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **10 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.6 liter(s)**

### Fermentables

| Type           | Name                       | Amount          | Yield  | EBC |
|----------------|----------------------------|-----------------|--------|-----|
| Grain          | BESTMALZ - Bestt Pale Ale  | 5 kg (61.3%)    | 80.5 % | 6   |
| Liquid Extract | Maris Otter Pale Ale Malt  | 1.5 kg (18.4%)  | 80 %   | 10  |
| Grain          | Abbey Castle               | 1 kg (12.3%)    | 75 %   | 50  |
| Grain          | Caramel/Crystal Malt - 30L | 0.225 kg (2.8%) | 75 %   | 59  |
| Grain          | Caramunich® typ I          | 0.18 kg (2.2%)  | 75 %   | 80  |
| Grain          | Biscuit Malt               | 0.25 kg (3.1%)  | 79 %   | 50  |

### Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil                | East Kent Goldings | 68 g   | 60 min | 4.5 %      |
| Boil                | East Kent Goldings | 28 g   | 20 min | 4.5 %      |
| Aroma (end of boil) | East Kent Goldings | 28 g   | 1 min  | 4.5 %      |

### Yeasts

| Name                           | Type | Form   | Amount | Laboratory |
|--------------------------------|------|--------|--------|------------|
| WLP007 - Dry English Ale Yeast | Ale  | Liquid | 11 ml  | White Labs |

### Notes

- 16l water set up for mashing  
pale malt, flaked oats and cookie mashed for 70 mins in 65-67 Celsius  
mashed-out in 77C, sparged with 11l of water  
14 BRIX = 13.4 blg  
after fermentation before correction: 6.7 BRIX = 6.1 blg (on refractometer)  
Final Gravity = 2.7 blg  
carbonation: 1.9  
alc vol ~5,8  
*Jun 8, 2018, 8:46 PM*