

## Special Bitter

- Gravity **10 BLG**
- ABV **4 %**
- IBU **28**
- SRM **5.8**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **65 min**
- Evaporation rate **13 %/h**
- Boil size **13.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **7.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **17 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **0.1 liter(s)** of **76C** water or to achieve **13.1 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount       | Yield | EBC |
|-------|----------------------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt             | 1.5 kg (75%) | 80 %  | 6   |
| Grain | Viking Monach II                 | 0.3 kg (15%) | 79 %  | 20  |
| Grain | Viking Pale Cookie (bursztynowy) | 0.1 kg (5%)  | 72 %  | 25  |
| Grain | Viking Caramel Sweet             | 0.1 kg (5%)  | 75 %  | 62  |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Iunga Polish Hops | 4 g    | 60 min | 10 %       |
| Boil    | Simcoe            | 5 g    | 30 min | 11.7 %     |
| Boil    | Simcoe            | 7 g    | 10 min | 11.7 %     |

### Yeasts

| Name                     | Type | Form   | Amount  | Laboratory |
|--------------------------|------|--------|---------|------------|
| WLP004 - Irish Ale Yeast | Ale  | Liquid | 1000 ml | White Labs |