

## 80 shilling

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **21**
- SRM **14.5**
- Style **Scottish Export 80/-**

### Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **22.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.2 liter(s)**

### Steps

- Temp **57 C**, Time **10 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **62.3C**
- Add grains
- Keep mash **10 min** at **57C**
- Keep mash **60 min** at **63C**
- Keep mash **15 min** at **72C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **22.2 liter(s)** of wort

### Fermentables

| Type  | Name               | Amount        | Yield | EBC  |
|-------|--------------------|---------------|-------|------|
| Grain | Pale Ale Best      | 3 kg (83.3%)  | 80 %  | 6    |
| Grain | Caraamber          | 0.2 kg (5.6%) | 75 %  | 70   |
| Grain | Caramunich II Best | 0.2 kg (5.6%) | 73 %  | 120  |
| Grain | Rauch Malz Best    | 0.1 kg (2.8%) | 77 %  | 6    |
| Grain | Röstmalz Best      | 0.1 kg (2.8%) | --- % | 1100 |

### Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | Northern Brewer    | 10 g   | 60 min | 9.2 %      |
| Boil    | East Kent Goldings | 10 g   | 15 min | 5 %        |
| Boil    | Fuggles            | 10 g   | 15 min | 2.4 %      |
| Boil    | Calista            | 10 g   | 15 min | 3.9 %      |

### Yeasts

| Name                          | Type | Form   | Amount | Laboratory  |
|-------------------------------|------|--------|--------|-------------|
| Wyeast - 1728<br>Scottish Ale | Ale  | Liquid | 100 ml | Wyeast Labs |

## Notes

- Rauchmalz 0,2  
Röstmalz 0,2  
Caraamber 0,2  
goryczka ok  
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