

Smoked ESB

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **30**
- SRM **18.1**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **8 %**
- Size with trub loss **14 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **16.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **66.7 C**, Time **60 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **73.3C**
- Add grains
- Keep mash **60 min** at **66.7C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **16.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|-----------------|--------|-----|
| Grain | Słód Halcyon Pale Ale (Fawcett) | 2.25 kg (60.8%) | 83 % | 7 |
| Grain | Słód Wędzony (Steinbach) | 0.5 kg (13.5%) | 80 % | 6 |
| Grain | Simpsons - Crystal Rye | 0.3 kg (8.1%) | 73 % | 177 |
| Grain | Weyermann - Carawheat | 0.25 kg (6.8%) | 77 % | 97 |
| Grain | Special B Malt | 0.15 kg (4.1%) | 65.2 % | 315 |
| Grain | Briess - Chocolate Malt | 0.05 kg (1.4%) | 60 % | 690 |
| Sugar | Invert Sugar | 0.2 kg (5.4%) | 100 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Fuggles | 20 g | 60 min | 4.5 % |
| Boil | Fuggles | 30 g | 30 min | 4.5 % |
| Boil | Fuggles | 20 g | 0 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|--------------------------|-----|--------|--------|------------------|
| FM11 Wichrowe Wzgórza | Ale | Liquid | 480 ml | Fermentum Mobile |
|--------------------------|-----|--------|--------|------------------|