

Esb

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.4 liter(s)**
- Total mash volume **43.2 liter(s)**

Steps

- Temp **67 C**, Time **40 min**
- Temp **74 C**, Time **20 min**

Mash step by step

- Heat up **32.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **20 min** at **74C**
- Sparge using **41.7 liter(s)** of **76C** water or to achieve **63.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Pale Malt (2 Row) UK | 10 kg (88.5%) | 83 % | 6 |
| Grain | Briess - Caracrystal | 0.8 kg (7.1%) | 78 % | 150 |
| Sugar | Muscovado jasny | 0.5 kg (4.4%) | 100 % | 28 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 60 g | 70 min | 5.1 % |
| Boil | East Kent Goldings | 30 g | 7 min | 5.1 % |
| Boil | Marynka | 20 g | 60 min | 8.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------|------|--------|--------|------------|
| WLP002 - English Ale Yeast | Ale | Liquid | 250 ml | White Labs |
| Starter 2 litry | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------|--------|---------|--------|
| Water Agent | Gips | 4 g | Mash | 65 min |