

## Bitter ESB v2

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.1 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount          | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Strzegom Monachijski typ I | 2.17 kg (48.5%) | 80 %  | 16  |
| Grain | Pilzneński                 | 1 kg (22.4%)    | 81 %  | 4   |
| Grain | Wiedeński                  | 1 kg (22.4%)    | 79 %  | 4   |
| Grain | Strzegom Karmel 30         | 0.3 kg (6.7%)   | 74 %  | 30  |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 30 g   | 60 min | 6.5 %      |
| Boil    | Lublin (Lubelski) | 15 g   | 60 min | 5.3 %      |
| Boil    | Lublin (Lubelski) | 35 g   | 15 min | 5.3 %      |

### Yeasts

| Name                 | Type | Form  | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| Danstar - Nottingham | Ale  | Slant | 150 ml | Danstar    |