

## ESB #10 Projekt FM

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- Gravity **11.6 BLG**
- ABV ---
- IBU **30**
- SRM **5.5**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **15 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **29.7 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **18.2 liter(s)**

### Steps

- Temp **55 C**, Time **10 min**
- Temp **66 C**, Time **60 min**
- Temp **5 C**, Time **78 min**

### Mash step by step

- Heat up **13.6 liter(s)** of strike water to **2.5C**
- Add grains
- Keep mash **78 min** at **5C**
- Keep mash **10 min** at **55C**
- Keep mash **60 min** at **66C**
- Sparge using **20.7 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

### Fermentables

| Type  | Name               | Amount         | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale  | 4.3 kg (94.5%) | 79 %  | 6   |
| Grain | Strzegom Karmel 30 | 0.25 kg (5.5%) | 75 %  | 30  |

### Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Challenger | 30 g   | 60 min | 6.5 %      |
| Boil    | Challenger | 30 g   | 15 min | 6.5 %      |
| Boil    | Challenger | 30 g   | 0 min  | 6.5 %      |

### Yeasts

| Name                       | Type | Form   | Amount  | Laboratory       |
|----------------------------|------|--------|---------|------------------|
| FM10 O czym szumią wierzby | Ale  | Liquid | 1000 ml | Fermentum Mobile |

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 10 g   | Boil    | 15 min |