

## 11. Citrus FES

---

- Gravity **19.1 BLG**
- ABV **8.3 %**
- IBU **53**
- SRM **65.8**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **12.5 %/h**
- Boil size **25.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.4 liter(s)**
- Total mash volume **33.8 liter(s)**

### Steps

- Temp **65 C**, Time **75 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **25.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **75 min** at **65C**
- Keep mash **0 min** at **78C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

### Fermentables

| Type  | Name                          | Amount         | Yield | EBC  |
|-------|-------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale             | 4.7 kg (55.6%) | 79 %  | 6    |
| Grain | Pszeniczny                    | 0.8 kg (9.5%)  | 81 %  | 4    |
| Grain | Strzegom Karmel 300           | 0.16 kg (1.9%) | 70 %  | 299  |
| Grain | Strzegom Czekoladowy 1200     | 0.75 kg (8.9%) | 68 %  | 1202 |
| Grain | Jęczmień palony               | 0.8 kg (9.5%)  | 55 %  | 985  |
| Grain | Viking Malt Wędzony Czereśnią | 0.4 kg (4.7%)  | 82 %  | 10   |
| Grain | Płatki owsiane                | 0.85 kg (10%)  | 85 %  | 3    |

### Hops

| Use for             | Name   | Amount | Time   | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Boil                | Simcoe | 30 g   | 60 min | 13.2 %     |
| Aroma (end of boil) | Simcoe | 25 g   | 10 min | 13.2 %     |
| Aroma (end of boil) | Comet  | 20 g   | 10 min | 12.2 %     |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 20 g   | Safale     |

## Extras

| Type   | Name          | Amount    | Use for | Time     |
|--------|---------------|-----------|---------|----------|
| Flavor | zest cytusowy | 1010101 g | Primary | 5 day(s) |