

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) |