

## Triple C

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **71**
- SRM **4.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **34.5 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4.2 liter(s) / kg**
- Mash size **31.5 liter(s)**
- Total mash volume **39 liter(s)**

### Steps

- Temp **66 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **31.5 liter(s)** of strike water to **71.5C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount        | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński  | 4 kg (53.3%)  | 80 %  | 4   |
| Grain | Strzegom Pale Ale    | 3 kg (40%)    | 79 %  | 6   |
| Grain | Weyermann - Carapils | 0.3 kg (4%)   | 78 %  | 4   |
| Grain | Carahell             | 0.2 kg (2.7%) | 77 %  | 26  |

### Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Simcoe                 | 15 g   | 90 min | 13.2 %     |
| Boil                | Columbus/Tomahawk/Zeus | 8 g    | 60 min | 15.5 %     |
| Boil                | Simcoe                 | 7 g    | 60 min | 13.2 %     |
| Boil                | Columbus/Tomahawk/Zeus | 8 g    | 30 min | 15.5 %     |
| Boil                | Simcoe                 | 7 g    | 30 min | 13.2 %     |
| Boil                | Columbus/Tomahawk/Zeus | 20 g   | 15 min | 15.5 %     |
| Boil                | Simcoe                 | 20 g   | 15 min | 13.2 %     |
| Boil                | Cascade                | 25 g   | 10 min | 6 %        |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 25 g   | 1 min  | 15.5 %     |
| Aroma (end of boil) | Simcoe                 | 25 g   | 1 min  | 13.2 %     |

|         |                        |      |          |        |
|---------|------------------------|------|----------|--------|
| Dry Hop | Columbus/Tomahawk/Zeus | 20 g | 7 day(s) | 15.5 % |
| Dry Hop | Simcoe                 | 23 g | 7 day(s) | 13.2 % |
| Dry Hop | Cascade                | 25 g | 7 day(s) | 6 %    |
| Dry Hop | Centennial             | 25 g | 7 day(s) | 10.5 % |
| Dry Hop | Amarillo               | 25 g | 7 day(s) | 9.5 %  |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 25 g   | Fermentis  |

## Notes

- Ca=110, Mg=18, Na=16, Cl=50, S04=279  
Fermentacja 18 > 20st C  
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