

Scotisch Export 80 Warka #4

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **20**
- SRM **9.2**
- Style **Scottish Export 80/-**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **10 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **20 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **12.7 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **9.9 liter(s)** of strike water to **69.3C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **60 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 2.4 kg (82.2%) | 79 % | 6 |
| Grain | Karmelowy Jasny 30EBC | 0.1 kg (3.4%) | 75 % | 30 |
| Grain | Cookie Stregom | 0.3 kg (10.3%) | 75 % | 40 |
| Grain | Jęczmień palony | 0.02 kg (0.7%) | 55 % | 1300 |
| Grain | Rice, Flaked | 0.1 kg (3.4%) | 70 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Fuggles | 5 g | 60 min | 4.5 % |
| Boil | East Kent Goldings | 5 g | 60 min | 5.1 % |
| Boil | Fuggles | 10 g | 20 min | 4.5 % |
| Boil | East Kent Goldings | 10 g | 20 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 6 g | Safale |