

India export porter

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **67**
- SRM **27.8**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **74 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.4 liter(s)**
- Total mash volume **15.9 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **12.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **5.1 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|--------|------|
| Grain | Strzegom Pilzneński | 2.6 kg (73.4%) | 80 % | 4 |
| Grain | Monachijski | 0.5 kg (14.1%) | 80 % | 16 |
| Grain | Special B Malt | 0.25 kg (7.1%) | 65.2 % | 315 |
| Grain | Black (Patent) Malt | 0.13 kg (3.7%) | 55 % | 1350 |
| Grain | Brown Malt (British Chocolate) | 0.06 kg (1.7%) | 70 % | 190 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| First Wort | Columbus/Tomahawk/Zeus | 15 g | 60 min | 14.4 % |
| Boil | Citra | 15 g | 10 min | 12.5 % |
| Boil | athanum | 15 g | 10 min | 3.6 % |
| Boil | Mosaic | 10 g | 10 min | 13.2 % |
| Aroma (end of boil) | Citra | 15 g | 0 min | 12.5 % |
| Aroma (end of boil) | Athanum | 15 g | 0 min | 3.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------|------|--------|---------|------------|
| hornindal | Ale | Liquid | 1000 ml | omega |