

# Bitterr

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **44**
- SRM **6.7**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **13 liter(s)**

## Fermentables

| Type  | Name                       | Amount          | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Pale Malt (2 Row) UK       | 1.68 kg (58.3%) | 78 %  | 6   |
| Grain | Briess - Munich Malt 10L   | 1 kg (34.7%)    | 77 %  | 20  |
| Grain | Caramel/Crystal Malt - 40L | 0.1 kg (3.5%)   | 74 %  | 79  |
| Grain | Briess - Wheat Malt, White | 0.1 kg (3.5%)   | 85 %  | 5   |

## Hops

| Use for             | Name    | Amount | Time     | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil                | Fuggles | 15 g   | 35 min   | 5.9 %      |
| Boil                | Golding | 15 g   | 35 min   | 5 %        |
| Aroma (end of boil) | Simcoe  | 5 g    | 25 min   | 13.2 %     |
| Aroma (end of boil) | Fuggles | 15 g   | 25 min   | 5.9 %      |
| Dry Hop             | Golding | 23 g   | 3 day(s) | 5 %        |

## Yeasts

| Name                    | Type | Form  | Amount | Laboratory  |
|-------------------------|------|-------|--------|-------------|
| Wyeast - London ESB Ale | Ale  | Slant | 50 ml  | Wyeast Labs |

## Notes

- piwo zeszlo z 1.044 do 1.012, karmel jest za mocno wyczualny, mimo ze jest dosc wytrawne i czuc fajna goryczke  
moze poczeka kilka dni i doloze odrobine zelatyny do sklarowania .  
*Mar 17, 2019, 12:32 PM*