

Brązowy Tragarz

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **19**
- SRM **29.8**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **13.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.1 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|------|
| Grain | Simpsons - Maris Otter | 2.5 kg (62.5%) | 81 % | 6 |
| Grain | Munich Malt | 0.5 kg (12.5%) | 80 % | 45 |
| Grain | Brown Malt (British Chocolate) | 0.4 kg (10%) | 70 % | 450 |
| Grain | Strzegom Monachijski typ II | 0.25 kg (6.3%) | 79 % | 22 |
| Grain | Simpsons - Golden Naked Oats | 0.2 kg (5%) | 73 % | 20 |
| Grain | Weyermann - Chocolate Rye | 0.15 kg (3.8%) | 20 % | 1050 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Fuggles | 30 g | 60 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------|------|--------|--------|------------|
| WLP004 - Irish Ale Yeast | Ale | Liquid | 150 ml | White Labs |