

#32 Rye Peated FES

- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **40**
- SRM **42.7**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **101.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **90 liter(s)**
- Total mash volume **126 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **90 liter(s)** of strike water to **70.4C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **47.2 liter(s)** of **76C** water or to achieve **101.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|------|
| Grain | Casle Malting Whisky Nature | 10 kg (27.8%) | 85 % | 4 |
| Grain | Weyermann - Rye Malt | 10 kg (27.8%) | 85 % | 7 |
| Grain | Weyermann - Pale Ale Malt | 7 kg (19.4%) | 85 % | 7 |
| Grain | Weyermann - Chocolate Rye | 2 kg (5.6%) | 20 % | 493 |
| Grain | Płatki jęczmienne | 4 kg (11.1%) | 80 % | 4 |
| Grain | Strzegom Czekoladowy jasny | 1 kg (2.8%) | 68 % | 400 |
| Grain | Jęczmień palony | 1 kg (2.8%) | 55 % | 1150 |
| Grain | Carafa II | 1 kg (2.8%) | 70 % | 1150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 120 g | 60 min | 5.5 % |
| Boil | Fuggles | 180 g | 45 min | 5.2 % |
| Boil | East Kent Goldings | 120 g | 30 min | 5.5 % |

| | | | | |
|---------------------|--------------------|------|-------|-------|
| Aroma (end of boil) | East Kent Goldings | 90 g | 3 min | 5.5 % |
|---------------------|--------------------|------|-------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale | Dry | 77 g | Danstar |