- **Theorem 2.25:** (Embedding for $W_p^1(\Omega)$)

  Ass.: $\Omega \subset \mathbb{R}^d$ $*$ $\wedge$ Lip, $1 < p, q < \infty$

  St.: Statements 1.-3. remain valid if $\mathring{W}_p^1(\Omega)$ is replaced by $W_p^1(\Omega)$.

- **Theorem 2.26:** (Embedding for $W_p^k(\Omega)$)

  Ass.: $\Omega \subset \mathbb{R}^d$ $*$ $\wedge$ Lip, $1 < p, q < \infty$, $0 \le j < k$, $k = 1, 2, \ldots$

  St.:
  1. $W_p^k(\Omega) \hookrightarrow C^j(\bar{\Omega})$ if $(k-j)p > d$.
  2. Let $(k-j)p \le d$. Then the embeddings $W_p^k(\Omega) \subset W_p^j(\Omega)$ resp. $\mathring{W}_p^k(\Omega) \subset \mathring{W}_p^j(\Omega)$ are
     - continuous if $q \le q_* := \dfrac{pd}{d-(k-j)p} \wedge q < \infty$.
     - compact if $q < q_*$.

     The results on the embedding of $\mathring{W}_p^k(\Omega) \subset \mathring{W}_q^j(\Omega)$ don't need the assumption that Ω is Lip.

- **Remarks:**
  1. St. 3 of Th. 2.24 and 2.25 can easily be generalized to $W_p^k(\Omega)$, i.e.

     $W_p^k(\Omega) \subset W_q^j(\Omega_m)$ if (…)

     $W_p^k(\Omega) \hookrightarrow W_q^j(\Omega_m)$ if (…)
  2. All results are sharp!

     For instance: $d=2$: $H^2(\Omega) \hookrightarrow C(\bar{\Omega})$, but $H^1(\Omega) \not\hookrightarrow C(\bar{\Omega})$!