

Below is the link, which shows why ArrayDeque is preferable to LinkedList when LinkedList is used as a Queue. The experiment shows that ArrayDeque is 3x faster.

<http://java-performance.info/linkedlist-performance/>

Below is a SO link where there is a discussion on why ArrayList & LinkedList are not good choices as a Queue. Element shifts in ArrayList & Node allocations in LinkedList are the reasons that are highlighted. Both these reasons do not apply to ArrayDeque, which is why it is awesome as a Deque implementation.

<http://stackoverflow.com/questions/6129805/what-is-the-fastest-java-collection-with-the-basic-functionality-of-a-queue>

The above link refers to this blog post as it has more specific details. Specifically, this link shows how LinkedList is 20x faster than ArrayList when both are used as Queues. Both had 1000 elements. You might want to look at the software they are using for the benchmark.