AXEL
Mold Release Agents & Process Aid Additives

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Case History: XTEND 19RSS Semi-Permanent Mold Release

XTEND® 19RSS is the newest addition to AXEL's already popular "19 series" of semi-permanent mold release; release products designed for non-gel coated part production and the toughest molding

conditions like: "B" side RTM; DCPD resin and others; polyurethane LFI and RIM; and more. The success of XTEND® 19RSS is its proven ability to resist build-up and mold scumming longer than other mold release formulations.

While XTEND® 19RSS provides great release, it will not transfer or pre-release, so it can also be used to produce parts with primer gel-coat, or as a spot treatment in gel coated part production to improve release in high shear or sharp radius areas.

XTEND® 19RSS can be applied at both ambient and elevated temperatures by wipe on (let dry; no polish) or by spraying. Depending on the application technique used, it will yield a semi-gloss or class-A finish on molds.

Case: Automotive/RTM

Our manufacturing customer is a tier one supplier to the automotive industry, producing parts by RTM using FRP and epoxy molds. Some parts are gel coated on the "A" side, while others utilize conductive primer gel coats, or no gel coat at all. Like many customers producing parts by RTM, the significant limitation on productivity at this customer relates to losses from resin buildup and scumming; particularly on the "B" side of molds, or when no gel coat is used. These conditions contribute to parts with surface defects; poor release; scrapped parts; mold damage; and increased labor in cleaning and maintaining molds.

In addition to problems related to buildup and scumming, many of this customer's molds have very complex mold geometry, making release more difficult and mold damage more prevalent. One mold in particular is comprised of a grid of raised box shaped structures approximately 8" in depth, and with minimal draft. The parts being produced from this mold were being realized in DCPD resin with no gel coat. De-molding these parts without damaging the part or mold proved to be impossible, so the manufacturer had resorted to gel coating the parts to avoid problems, although this added to his costs.

XTEND® 19RSS was introduced to this facility and immediately tested on the problematic mold described above. The release results were excellent when molding DCPD resin with no gel coat, so there was an immediate savings. With proof of how dependably XTEND® 19RSS performed here, the release was

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tested on the "B" side of other RTM molds. In these tests, XTEND® 19RSS ran far cleaner than the release product that had been previously used on the "B" side, allowing 2X as many parts to be produced before cleaning was required. These successes convinced this manufacturer to convert production to XTEND® 19RSS

Case: Manhole Covers

A manufacturer molding highly filled vinyl ester resin from aluminum molds to produce manholes and utility boxes had difficulty achieving the productivity that he hoped for because the molds became dirty very quickly. This buildup made release more difficult and also left parts with an inconsistent surface appearance that was unacceptable to his customers. To achieve a suitable surface on the parts, molds required cleaning after only a few parts.

XTEND® 19RSS was tested by applying the release to the aluminum molds at 115F, using an HLVP spray gun. Following this initial preparation the manufacturer found that he was able to run 40 parts before the molds required cleaning. This significant increase in productivity, and the more consistent surface appearance of the molded parts throughout the production run, has encouraged this customer to continue working with XTEND® 19RSS in the optimization of his production.

XTEND® 19RSS provides easy release and reduces scumming and buildup on "B" sides in RTM.